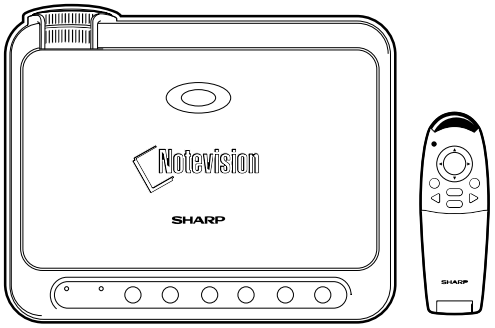
SHARP SERVICE MANUAL
SERVICE-ANLEITUNG

S91A5PG-M15S/



DIGITAL MULTIMEDIA PROJECTOR
DIGITALER MULTIMEDIA PROJEKTOR

MODELS
MODELLE

PG-M15X
PG-M15S
AN-M15T

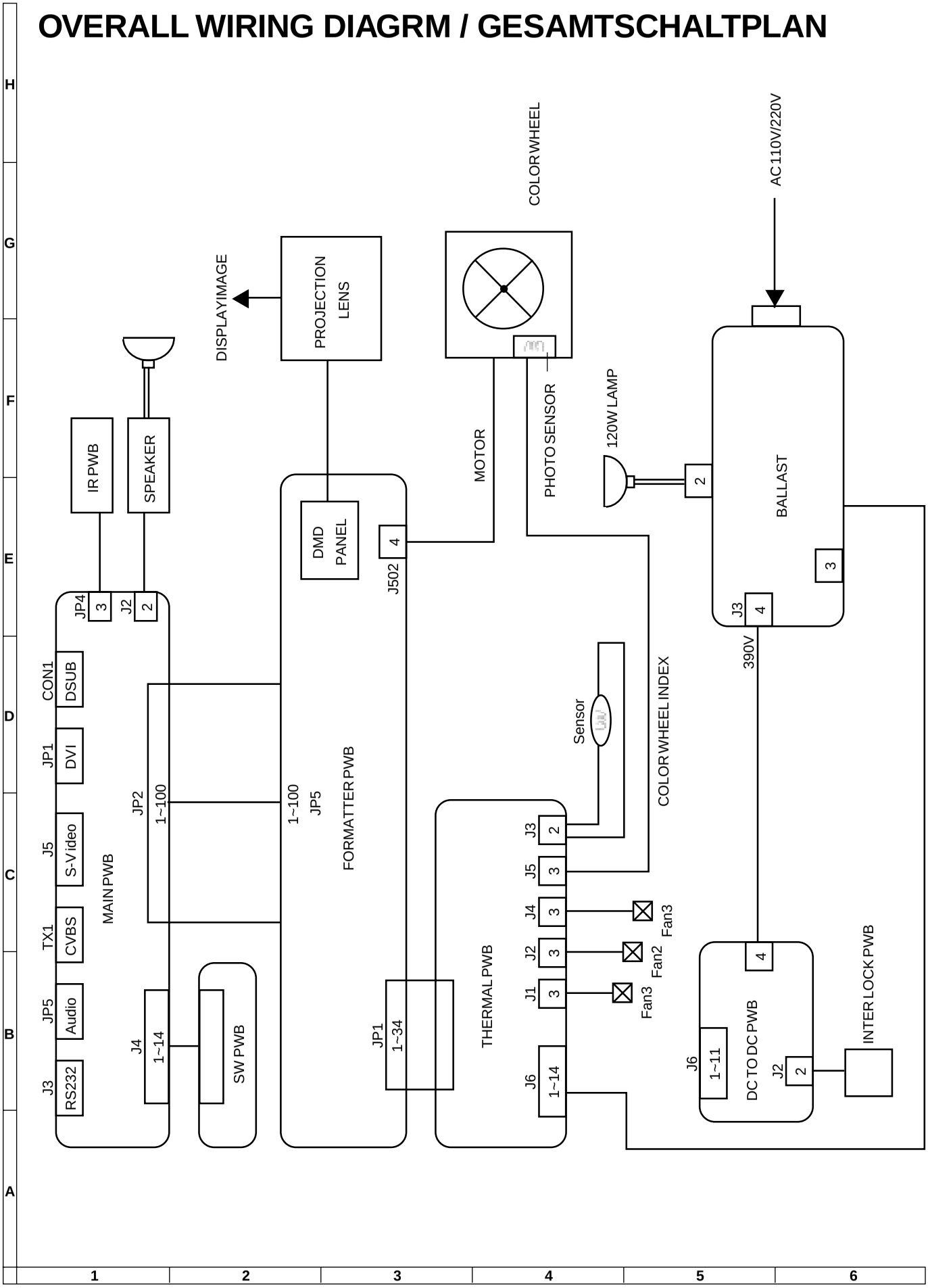
In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

Im Interesse der Benutzersicherheit (erforderliche Sicherheitsregeln in einigen Ländern) muß das Gerät in seinen Originalzustand gebracht werden. Außerdem dürfen für die spezifizierten Bauteile nur identische Teile verwendet werden.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

OVERALL WIRING DIAGRM / GESAMTSCHALTPLAN



PARTS LIST

PARTS REPLACEMENT

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

Les pieces marquées "⚠" sont importantes pour maintenir la sécurité de l'appareil. Ne remplacer ces pieces que par des pieces dont le numéro est spécifié pour maintenir la sécurité et protéger le bon fonctinnement de l'appareil.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

in **USA**: Contact your nearest SHARP Parts Distributor.
For location of SHARP Parts Distributor,
Please call Toll-Free; 1-800-BE-SHARP

in **CANADA**: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100.

ERSATZTEILLISTE

AUSTAUSCH VON TEILEN

Ersatzteile, die besondere Sicherheitseigenschften haben, sind in dieser Anleitung markiert. Elektrische Komponenten mit solchen Eigenshaften sind in den Ersatzteil durch "⚠" gekenn-zeichnet.
Der Gebrauch von Ersatzteilen, die nicht deselben Sicherheits-eigenschaften haben wie die vom Hersteller empfohlenen ud in der Bedienungsanleitung angegebenen, können zur Ursache von Blitzeinschlägen, Bränden und anderen Gefahren werden.

"WIE MAN ERSATSTEILE BESTELLT"

Damit Ihre Bestellung promt und korrekt ausgeführt wird, geben Sie bitte folgende Informationen.

1. MODELL NR.
2. REF. NR.
3. ERSATZTEIL NR.
4. BESCHREIBUNG
5. KODE
6. QUANTITÄT

★ MARK: SPARE PARTS-DELIVERY SECTION

★ MARKIERUNG : ERSATZTEILE-LIEFERUNG

Ref. No.	Part No.	★	Description	Code

DMD ASSEMBLY

	9HJ48817DMD01	J	DMD Unit (PG-M15S)	EQ
	9HJ48818DMD01	J	DMD Unit (PG-M15X)	FT

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

	9HJ7083204001	–	Main Unit (PG-M15X)	—
	9HJ7083114001	–	Main Unit (PG-M15S)	—
	9HJ8083102001	–	Thermal Unit	—
	9HJ8083105001	–	IR Unit	—
	9HJ8083108001	–	SW Unit	—

PRINTED WIRING BOARD ASSEMBLIES
(REPLACEMENT ITEM)

	9HJ7083123001	J	Ballast Unit	DA
	9HJ7583102001	J	DC to DC Unit	CA
	9HJ7683101002	J	Photo Sensor Unit	AV
	9HJ8083201001	J	Formatter Unit (PG-M15X)	CR
	9HJ8083101001	J	Formatter Unit (PG-M15S)	CQ

9HJ7083204001 (PG-M15X)
9HJ7083114001 (PG-M15S)
MAIN UNIT

INTEGRATED CIRCUITS

IR1	9HJ20FM603801	J	FM6038LM	AL
U1	9HJ2074LVC141	J	74LVC14	AE
U2	9HJ20LT139901	J	LT1399	AY
U3	9HJ20LT139901	J	LT1399	AY
U5	9HJ20LT161701	J	LT1617	AV
U6	9HJ2024LC21A1	J	24LC21A	AK
U7	9HJ20SII151A1	J	Sii151A	BD
U8	9HJ2074LVC151	J	74LVC157	AF
U9	9HJ20AD988602	J	AD9886	BP
U10	9HJ20S816A331	J	S-816-3.3	AG
U11	9HJ20PW164001	J	PW164	CB
U12	9HJ2124LC1601	J	24LC16B	AK
U13	9HJ08HN1K03F1	J	HN1K03F1	AG
U15	9HJ20S816A251	J	S-816-2.5	AG
U16	9HJ20ICS50101	J	ICS501	AR
U17	9HJ20ICS50201	J	ICS502M	AS
U18	9HJ2128F800T4	J	28F800	BA
U19	9HJ2074LVC741	J	74LVC74	AE
U20	9HJ2074AHC1G1	J	74AHC1G32	AE
U21	9HJ2074LVC141	J	74LVC14	AE
U22	9HJ20LM483201	J	LM4832M	AX
U23	9HJ20LM487101	J	LM4871	AP
U24	9HJ20VPC32302	J	VPC3230	BV
U25	9HJ20CY7C6363	J	CY7C63612	AP
U26	9HJ20MAX20201	J	MAX202	AT
U27	9HJ2074LVC151	J	74LVC157	AF
U28	9HJ2011173301	J	LT1117-3.3	AH
U29	9HJ20MB895371	J	MB89537	BG
U30	9HJ20PSD60001	J	PSD600IM	AK
U31	9HJ20TC7S00F1	J	TC7S00F	AE
U32	9HJ2074LVC151	J	74LVC157	AF
U33	9HJ20PQ20WZ11	J	PQ2	AL
U34	9HJ20S816A331	J	S-816-3.3	AG
U35	9HJ2074LV1231	J	74LVC123	AH
U36	9HJ20AHCT1401	J	74AHCT14	AE

Ref. No.	Part No.	★	Description	Code
9HJ7083204001 (PG-M15X) 9HJ7083114001 (PG-M15S) MAIN UNIT (Continued)				
U37	9HJ20AHCT1401	J	74AHCT14	AE
U38	9HJ20S816A331	J	S-816-3.3	AG
U39	9HJ20AHCT1401	J	74AHCT14	AE
U40	9HJ20ADG66301	J	ADG663	AN
TRANSISTORS				
Q1	9HJ082SB13861	J	2SB1386	AE
Q2	9HJ082SB13861	J	2SB1386	AE
Q3	9HJ082SB13861	J	2SB1386	AE
Q4	9HJ082SC16231	J	2SC1623	AC
Q5	9HJ082SA81201	J	2SA81201	AC
Q7	9HJ08DTC14402	J	DTC144EE	AC
Q8	9HJ08DTC14402	J	DTC144EE	AC
Q9	9HJ08DTC14402	J	DTC144EE	AC
Q10	9HJ08DTC14402	J	DTC144EE	AC
Q11	9HJ08DTC14402	J	DTC144EE	AC
Q12	9HJ082SA10372	J	2SC1037AKQ	AC
Q13	9HJ082SC27122	J	2SC2712 (Y)	AC
Q14	9HJ082SC27122	J	2SC2712 (Y)	AC
Q15	9HJ082SA10372	J	2SC1037AKQ	AC
Q16	9HJ08DTC14402	J	DTC144EE	AC
Q17	9HJ08DTC14402	J	DTC144EE	AC
Q18	9HJ082SC27122	J	2SC2712 (Y)	AC
Q19	9HJ082SA10372	J	2SC1037AKQ	AC
Q20	9HJ08DTC14402	J	DTC144EE	AC
Q21	9HJ08DTC14402	J	DTC144EE	AC
Q22	9HJ082SC27122	J	2SC2712 (Y)	AC
Q23	9HJ082SA10372	J	2SC1037AKQ	AC
Q24	9HJ08DTC14402	J	DTC144EE	AC
Q25	9HJ08DTC14402	J	DTC144EE	AC
Q26	9HJ082SC27122	J	2SC2712 (Y)	AC
Q28	9HJ082SB13861	J	2SB1386	AE
Q29	9HJ082SB13861	J	2SB1386	AE
DIODES				
D6	9HJ09MBR05201	J	Diode, MBR0520L	AE
D7	9HJ09MA3120W1	J	Diode, MA3120WA	AF
D8	9HJ09MA3120W1	J	Diode, MA3120WA	AF
D9	9HJ09MA3120W1	J	Diode, MA3120WA	AF
D10	9HJ09MA3120W1	J	Diode, MA3120WA	AF
D15	9HJ090805A001	J	Diode, ESD0805A	AE
D16	9HJ090805A001	J	Diode, ESD0805A	AE
D17	9HJ09MMBD9141	J	Diode, MMBD914LT1	AC
D19	9HJ09MMBD9141	J	Diode, MMBD914LT1	AC
D20	9HJ09MMBD9141	J	Diode, MMBD914LT1	AC
D21	9HJ090805A001	J	Diode, ESD0805A	AE
D22	9HJ091N414802	J	Diode, RLS4148	AC
D23	9HJ091N414802	J	Diode, RLS4148	AC
D24	9HJ09RB461F01	J	Diode, RB461F	AD
D25	9HJ09MA153001	J	Diode, MA153	AD
D26	9HJ09RB461F01	J	Diode, RB461F	AD
D27	9HJ09MA153001	J	Diode, MA153	AD
D28	9HJ09RB461F01	J	Diode, RB461F	AD
D29	9HJ09MA153001	J	Diode, MA153	AD
D30	9HJ09RB461F01	J	Diode, RB461F	AD
D31	9HJ09MA153001	J	Diode, MA153	AD
D32	9HJ09RB461F01	J	Diode, RB461F	AD
D33	9HJ09MA153001	J	Diode, MA153	AD
D34	9HJ09DA221001	J	Diode, DA221	AD
D35	9HJ09DA221001	J	Diode, DA221	AD
D36	9HJ09DA221001	J	Diode, DA221	AD
D37	9HJ090805A001	J	Diode, ESD0805A	AE
D38	9HJ090805A001	J	Diode, ESD0805A	AE
D41	9HJ09DA221001	J	Diode, DA221	AD
D42	9HJ09DA221001	J	Diode, DA221	AD
D43	9HJ09DA221001	J	Diode, DA221	AD
D44	9HJ09DA221001	J	Diode, DA221	AD
D45	9HJ09DA221001	J	Diode, DA221	AD
D46	9HJ09DA221001	J	Diode, DA221	AD
D47	9HJ09DA221001	J	Diode, DA221	AD
D48	9HJ09DA221001	J	Diode, DA221	AD
D50	9HJ09DA221001	J	Diode, DA221	AD
D51	9HJ09DA221001	J	Diode, DA221	AD
D56	9HJ09DA221001	J	Diode, DA221	AD
D57	9HJ09DA221001	J	Diode, DA221	AD
D58	9HJ09DA221001	J	Diode, DA221	AD
D59	9HJ09DA221001	J	Diode, DA221	AD
D60	9HJ09DA221001	J	Diode, DA221	AD
D61	9HJ09DA221001	J	Diode, DA221	AD
D62	9HJ09DA221001	J	Diode, DA221	AD
D63	9HJ09DA221001	J	Diode, DA221	AD
D64	9HJ09DA221001	J	Diode, DA221	AD
D65	9HJ09DA221001	J	Diode, DA221	AD
PACKAGED CIRCUITS				
Y1	9HJ0720000102	J	Crystal, 20MHz	AK
Y2	9HJ0720250101	J	Crystal, 20.250MHz	AK
Y3	9HJ0706000102	J	Crystal, 6MHz	AF
Y4	9HJ0773728101	J	Crystal, 7.3728MHz	AH
COILS AND FILTERS				
L1	9HJ0310033001	J	Inductor Power, 10µH, 1.15A	AG
L2	9HJ0322043401	J	Inductor, 22µH	AE
L3	9HJ0322043401	J	Inductor, 22µH	AE
L5	9HJ0310073301	J	Inductor Power, 10µH, 100mA	AE
L6	9HJ0310073301	J	Inductor Power, 10µH, 100mA	AE
L9	9HJ0310073301	J	Inductor Power, 10µH, 100mA	AE
L10	9HJ0310073301	J	Inductor Power, 10µH, 100mA	AE
L11	9HJ0502040001	J	Filter	AG
L12	9HJ0502040001	J	Filter	AG
L16	9HJ0333973301	J	Chip Coil, 3.3µH, 130mA	AE
L17	9HJ0333973301	J	Chip Coil, 3.3µH, 130mA	AE
L18	9HJ0333973301	J	Chip Coil, 3.3µH, 130mA	AE
L19	9HJ0502040001	J	Filter	AG
L20	9HJ0502040001	J	Filter	AG
L21	9HJ0310073301	J	Inductor Power, 10µH, 100mA	AE
L22	9HJ0300035401	J	Inductor, FCM2012K-301	AC
L23	9HJ0300035401	J	Inductor, FCM2012K-301	AC
L24	9HJ0300035401	J	Inductor, FCM2012K-301	AC
L25	9HJ0300035401	J	Inductor, FCM2012K-301	AC
L26	9HJ0300035401	J	Inductor, FCM2012K-301	AC
L27	9HJ0322973301	J	Chip Coil, 2.2µH, 140mA	AE
L28	9HJ0322973301	J	Chip Coil, 2.2µH, 140mA	AE
L29	9HJ0322973301	J	Chip Coil, 2.2µH, 140mA	AE
L30	9HJ0300111401	J	Filter, BLM18BB121SN1	AC
L31	9HJ0300111401	J	Filter, BLM18BB121SN1	AC
L32	9HJ0300111401	J	Filter, BLM18BB121SN1	AC
CAPACITORS				
BC1	9HJ0210887101	J	0.1 50V Ceramic	AC
BC3	9HJ0210887101	J	0.1 50V Ceramic	AC
BC4	9HJ0210887101	J	0.1 50V Ceramic	AC
BC5	9HJ0210887101	J	0.1 50V Ceramic	AC
BC6	9HJ0210887101	J	0.1 50V Ceramic	AC
BC7	9HJ0210887101	J	0.1 50V Ceramic	AC
BC8	9HJ0210887101	J	0.1 50V Ceramic	AC
BC9	9HJ0210887101	J	0.1 50V Ceramic	AC
BC10	9HJ0210887101	J	0.1 50V Ceramic	AC
BC10A1	9HJ0210887101	J	0.1 50V Ceramic	AC
BC11	9HJ0210887101	J	0.1 50V Ceramic	AC
BC12	9HJ0210887101	J	0.1 50V Ceramic	AC
BC13	9HJ0210887101	J	0.1 50V Ceramic	AC
BC13A1	9HJ0210887101	J	0.1 50V Ceramic	AC
BC14	9HJ0210887101	J	0.1 50V Ceramic	AC
BC15	9HJ0210887101	J	0.1 50V Ceramic	AC
BC16	9HJ0210887101	J	0.1 50V Ceramic	AC
BC17	9HJ0210887101	J	0.1 50V Ceramic	AC
BC18	9HJ0210887101	J	0.1 50V Ceramic	AC
BC19	9HJ0210887101	J	0.1 50V Ceramic	AC
BC20	9HJ0210887101	J	0.1 50V Ceramic	AC
BC21	9HJ0210887101	J	0.1 50V Ceramic	AC
BC22	9HJ0210887101	J	0.1 50V Ceramic	AC
BC23	9HJ0210887101	J	0.1 50V Ceramic	AC
BC24	9HJ0210887101	J	0.1 50V Ceramic	AC
BC25	9HJ0210887101	J	0.1 50V Ceramic	AC

9HJ7083204001 (PG-M15X)
9HJ7083114001 (PG-M15S)
MAIN UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
BC26	9HJ0210887101	J	0.1	50V	Ceramic	AC
BC27	9HJ0210887101	J	0.1	50V	Ceramic	AC
BC28	9HJ0210887101	J	0.1	50V	Ceramic	AC
BC29	9HJ0210887101	J	0.1	50V	Ceramic	AC
BC30	9HJ0210887101	J	0.1	50V	Ceramic	AC
C1	9HJ0210074502	J	10	16V	Tantalum	AD
C2	9HJ0210887101	J	0.1	50V	Ceramic	AC
C3	9HJ0210074502	J	10	16V	Tantalum	AD
C4	9HJ0210887101	J	0.1	50V	Ceramic	AC
C6	9HJ0210074502	J	10	16V	Tantalum	AD
C7	9HJ0210887101	J	0.1	50V	Ceramic	AC
C8	9HJ0201083101	J	1	10V	Ceramic	AC
C9	9HJ0201083101	J	1	10V	Ceramic	AC
C10	9HJ0210977201	J	1	16V	Chip 0805	AC
C11	9HJ0210887101	J	0.1	50V	Ceramic	AC
C12	9HJ0247074901	J	47	16V	Chip	AG
C13	9HJ0247074901	J	47	16V	Chip	AG
C14	9HJ0210977201	J	1	16V	Chip 0805	AC
C15	9HJ0210887101	J	0.1	50V	Ceramic	AC
C16	9HJ0222447101	J	22p	50V	Ceramic	AC
C17	9HJ0210447101	J	10p	50V	Ceramic	AC
C18	9HJ0210447101	J	10p	50V	Ceramic	AC
C19	9HJ0210447101	J	10p	50V	Ceramic	AC
C20	9HJ0227447101	J	27p	50V	Ceramic	AC
C21	9HJ0227447101	J	27p	50V	Ceramic	AC
C22	9HJ0227447101	J	27p	50V	Ceramic	AC
C23	9HJ0210747101	J	0.01	50V	Ceramic	AC
C24	9HJ0210747101	J	0.01	50V	Ceramic	AC
C25	9HJ0210074502	J	10	16V	Tantalum	AD
C26	9HJ0210747101	J	0.01	50V	Ceramic	AC
C27	9HJ0210887101	J	0.1	50V	Ceramic	AC
C29	9HJ0222447101	J	22p	50V	Ceramic	AC
C31	9HJ0210887101	J	0.1	50V	Ceramic	AC
C32	9HJ0210887101	J	0.1	50V	Ceramic	AC
C33	9HJ0247747101	J	0.047	25V	Ceramic	AC
C34	9HJ0210887101	J	0.1	50V	Ceramic	AC
C35	9HJ0247747101	J	0.047	25V	Ceramic	AC
C36	9HJ0210887101	J	0.1	50V	Ceramic	AC
C37	9HJ0247747101	J	0.047	25V	Ceramic	AC
C38	9HJ0210887101	J	0.1	50V	Ceramic	AC
C39	9HJ0210737101	J	0.001	50V	Ceramic	AC
C40	9HJ0210887101	J	0.1	50V	Ceramic	AC
C41	9HJ0239647101	J	3900p	50V	Ceramic	AC
C42	9HJ0239747101	J	0.039	50V	Ceramic	AC
C43	9HJ0210887101	J	0.1	50V	Ceramic	AC
C44	9HJ0210887101	J	0.1	50V	Ceramic	AC
C45	9HJ0210887101	J	0.1	50V	Ceramic	AC
C46	9HJ0210887101	J	0.1	50V	Ceramic	AC
C47	9HJ0210887101	J	0.1	50V	Ceramic	AC
C48	9HJ0210887101	J	0.1	50V	Ceramic	AC
C49	9HJ0210887101	J	0.1	50V	Ceramic	AC
C50	9HJ0210887101	J	0.1	50V	Ceramic	AC
C52	9HJ0210887101	J	0.1	50V	Ceramic	AC
C53	9HJ0210887101	J	0.1	50V	Ceramic	AC
C54	9HJ0210887101	J	0.1	50V	Ceramic	AC
C56	9HJ0210887101	J	0.1	50V	Ceramic	AC
C57	9HJ0210887101	J	0.1	50V	Ceramic	AC
C60	9HJ0210887101	J	0.1	50V	Ceramic	AC
C61	9HJ0210887101	J	0.1	50V	Ceramic	AC
C64	9HJ0210887101	J	0.1	50V	Ceramic	AC
C65	9HJ0210887101	J	0.1	50V	Ceramic	AC
C67	9HJ0210887101	J	0.1	50V	Ceramic	AC
C68	9HJ0210887101	J	0.1	50V	Ceramic	AC
C70	9HJ0210887101	J	0.1	50V	Ceramic	AC
C71	9HJ0210887101	J	0.1	50V	Ceramic	AC
C74	9HJ0210074502	J	10	16V	Tantalum	AD
C75	9HJ0210074502	J	10	16V	Tantalum	AD
C76	9HJ0268537101	J	680p	50V	Ceramic	AC
C78	9HJ0222447101	J	22p	50V	Ceramic	AC
C79	9HJ0210074502	J	10	16V	Tantalum	AD
C80	9HJ0210074502	J	10	16V	Tantalum	AD
C82	9HJ0222447101	J	22p	50V	Ceramic	AC
C83	9HJ0222447101	J	22p	50V	Ceramic	AC
C84	9HJ0222447101	J	22p	50V	Ceramic	AC
C85	9HJ0210074502	J	10	16V	Tantalum	AD
C86	9HJ0268537101	J	680p	50V	Ceramic	AC
C87	9HJ0268537101	J	680p	50V	Ceramic	AC
C88	9HJ0210074502	J	10	16V	Tantalum	AD
C90	9HJ0210074502	J	10	16V	Tantalum	AD
C91	9HJ0210074502	J	10	16V	Tantalum	AD
C92	9HJ0210074502	J	10	16V	Tantalum	AD
C93	9HJ0268537101	J	680p	50V	Ceramic	AC
C94	9HJ0210887101	J	0.1	50V	Ceramic	AC
C95	9HJ0210887101	J	0.1	50V	Ceramic	AC
C96	9HJ0210887101	J	0.1	50V	Ceramic	AC
C97	9HJ0210977201	J	1	16V	Chip 0805	AC
C98	9HJ0210977201	J	1	16V	Chip 0805	AC
C99	9HJ0282647101	J	8200p	50V	Ceramic	AC
C100	9HJ0282647101	J	8200p	50V	Ceramic	AC
C102	9HJ0282647101	J	8200p	50V	Ceramic	AC
C103	9HJ0282647101	J	8200p	50V	Ceramic	AC
C104	9HJ0210977201	J	1	16V	Chip 0805	AC
C105	9HJ0210977201	J	1	16V	Chip 0805	AC
C106	9HJ0210074502	J	10	16V	Tantalum	AD
C107	9HJ0210887101	J	0.1	50V	Ceramic	AC
C108	9HJ0210977201	J	1	16V	Chip 0805	AC
C109	9HJ0210977201	J	1	16V	Chip 0805	AC
C110	9HJ0210977201	J	1	16V	Chip 0805	AC
C114	9HJ0210074502	J	10	16V	Tantalum	AD
C115	9HJ0210887101	J	0.1	50V	Ceramic	AC
C116	9HJ0210977201	J	1	16V	Chip 0805	AC
C118	9HJ0247834101	J	0.47	16V	Tantalum	AC
C123	9HJ0210074502	J	10	16V	Tantalum	AD
C124	9HJ0233447101	J	33p	50V	Ceramic	AC
C125	9HJ0210074502	J	10	16V	Tantalum	AD
C126	9HJ0233447101	J	33p	50V	Ceramic	AC
C127	9HJ0210977201	J	1	16V	Chip 0805	AC
C128	9HJ0210977201	J	1	16V	Chip 0805	AC
C129	9HJ0210977201	J	1	16V	Chip 0805	AC
C130	9HJ0210977201	J	1	16V	Chip 0805	AC
C131	9HJ0210074502	J	10	16V	Tantalum	AD
C132	9HJ0233447101	J	33p	50V	Ceramic	AC
C133	9HJ0230367101	J	3p	50V	Ceramic	AC
C134	9HJ0230367101	J	3p	50V	Ceramic	AC
C135	9HJ0247747101	J	0.047	25V	Ceramic	AC
C136	9HJ0247074901	J	47	16V	Chip	AG
C137	9HJ0247747101	J	0.047	25V	Ceramic	AC
C138	9HJ0247074901	J	47	16V	Chip	AG
C139	9HJ0222837101	J	0.22	25V	Ceramic	AC
C140	9HJ0215645101	J	0.0015	25V	Ceramic	AC
C141	9HJ0239537101	J	390p	50V	Chip	AC
C142	9HJ0247747101	J	0.047	25V	Ceramic	AC
C143	9HJ0215645101	J	0.0015	25V	Ceramic	AC
C144	9HJ0210887101	J	0.1	50V	Ceramic	AC
C145	9HJ0210887101	J	0.1	50V	Ceramic	AC
C146	9HJ0210887101	J	0.1	50V	Ceramic	AC
C147	9HJ0210887101	J	0.1	50V	Ceramic	AC
C148	9HJ0210887101	J	0.1	50V	Ceramic	AC
C149	9HJ0210074502	J	10	16V	Tantalum	AD
C150	9HJ0210887101	J	0.1	50V	Ceramic	AC
C151	9HJ0210887101	J	0.1	50V	Ceramic	AC
C152	9HJ0210887101	J	0.1	50V	Ceramic	AC
C153	9HJ0210074502	J	10	16V	Tantalum	AD
C154	9HJ0210074502	J	10	16V	Tantalum	AD
C155	9HJ0210887101	J	0.1	50V	Ceramic	AC
C156	9HJ0212537202	J	120p	50V	Chip 0603	AC
C157	9HJ0212537202	J	120p	50V	Chip 0603	AC
C158	9HJ0212537202	J	120p	50V	Chip 0603	AC
C159	9HJ0212537202	J	120p	50V	Chip 0603	AC
C160	9HJ0222447101	J	22p	50V	Ceramic	AC
C161	9HJ0222447101	J	22p	50V	Ceramic	AC
C162	9HJ0210887101	J	0.1	50V	Ceramic	AC
C163	9HJ0210887101	J	0.1	50V	Ceramic	AC
C164	9HJ0210887101	J	0.1	50V	Ceramic	AC
C165	9HJ0210887101	J	0.1	50V	Ceramic	AC
C166	9HJ0210887101	J	0.1	50V	Ceramic	AC

9HJ7083204001 (PG-M15X)
9HJ7083114001 (PG-M15S)
MAIN UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
C167	9HJ0210887101	J	0.1	50V	Ceramic	AC
C168	9HJ0210887101	J	0.1	50V	Ceramic	AC
C169	9HJ0247074901	J	47	16V	Chip	AG
C170	9HJ0210074502	J	10	16V	Tantalum	AD
C171	9HJ0210074502	J	10	16V	Tantalum	AD
C172	9HJ0210074502	J	10	16V	Tantalum	AD
C173	9HJ0222447101	J	22p	50V	Ceramic	AC
C174	9HJ0210887101	J	0.1	50V	Ceramic	AC
C175	9HJ0210887101	J	0.1	50V	Ceramic	AC
C176	9HJ0222447101	J	22p	50V	Ceramic	AC
C177	9HJ0210887101	J	0.1	50V	Ceramic	AC
C178	9HJ0218745101	J	0.018	25V	Ceramic	AD
C179	9HJ0210887101	J	0.1	50V	Ceramic	AC
C182	9HJ0210887101	J	0.1	50V	Ceramic	AC
C183	9HJ0222447101	J	22p	50V	Ceramic	AC
C184	9HJ0222447101	J	22p	50V	Ceramic	AC
C185	9HJ0222447101	J	22p	50V	Ceramic	AC
C186	9HJ0210737101	J	0.001	50V	Ceramic	AC
C187	9HJ0210737101	J	0.001	50V	Ceramic	AC
C189	9HJ0233547101	J	330p	50V	Ceramic	AC
C190	9HJ0233547101	J	330p	50V	Ceramic	AC
C191	9HJ0233547101	J	330p	50V	Ceramic	AC
C192	9HJ0233547101	J	330p	50V	Ceramic	AC
C194	9HJ0233547101	J	330p	50V	Ceramic	AC
C196	9HJ0210172401	J	100	16V	Electrolytic	AD
C199	9HJ0210547102	J	100p	50V	Ceramic	AC
C200	9HJ0210547102	J	100p	50V	Ceramic	AC
C201	9HJ0210547102	J	100p	50V	Ceramic	AC
C202	9HJ0210547102	J	100p	50V	Ceramic	AC
C204	9HJ0210074502	J	10	16V	Tantalum	AD
C205	9HJ0210074502	J	10	16V	Tantalum	AD
C206	9HJ0210447101	J	10	50V	Tantalum	AC
C207	9HJ0210447101	J	10	50V	Tantalum	AC
C209	9HJ0218547101	J	180p	50V	Ceramic	AC
C210	9HJ0218547101	J	180p	50V	Ceramic	AC
C211	9HJ0218547101	J	180p	50V	Ceramic	AC
C212	9HJ0210074502	J	10	16V	Tantalum	AD
C213	9HJ0210074502	J	10	16V	Tantalum	AD
C214	9HJ0210844201	J	0.1	16V	Ceramic	AC
C215	9HJ0239647101	J	3900p	50V	Ceramic	AC
C217	9HJ0210074502	J	10	16V	Tantalum	AD
C218	9HJ0210074502	J	10	16V	Tantalum	AD
C219	9HJ0222447101	J	22p	50V	Ceramic	AC
C220	9HJ0210887101	J	0.1	50V	Ceramic	AC
C221	9HJ0210887101	J	0.1	50V	Ceramic	AC
C222	9HJ0233547101	J	330p	50V	Ceramic	AC
C223	9HJ0233547101	J	330p	50V	Ceramic	AC
C224	9HJ0233547101	J	330p	50V	Ceramic	AC
CP1	9HJ0210074502	J	10	16V	Tantalum	AD
CP2	9HJ0210074502	J	10	16V	Tantalum	AD
L13	9HJ0222984201	J	2.2	16V	Tantalum	AD

RESISTORS

L14	9HJ0100039501	J	0	1/10W	Chip 0805	AC
R1	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R2	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R3	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R4	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R5	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R6	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R7	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R8	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R9	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R10	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R11	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R12	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R13	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R14	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R15	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R16	9HJ0130316501	J	30.1k	1/16W	Chip 0603	AC
R17	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R18	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R19	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R20	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R21	9HJ0120236501	J	2k	1/16W	Chip 0603	AC
R22	9HJ0120236501	J	2k	1/16W	Chip 0603	AC
R23	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R25	9HJ0147136501	J	470	1/16W	Chip 0603	AC
R26	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R27	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R28	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R29	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R30	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R31	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R32	9HJ0150116501	J	499	1/16W	Chip 0603	AC
R33	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R34	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R35	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R36	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R37	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R38	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R39	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R40	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R41	9HJ0151116501	J	510	1/16W	Chip 0603	AC
R42	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R45	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R46	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R47	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R50	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R51	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R52	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R55	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R56	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R58	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R59	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R61	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R62	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R65	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R67	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R68	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R69	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R70	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R71	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R72	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R73	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R75	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R76	9HJ0120236501	J	2k	1/16W	Chip 0603	AC
R77	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R78	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R79	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R80	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R81	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R83	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R84	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R86	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R87	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R89	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R90	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R91	9HJ0124436501	J	240k	1/16W	Chip 0603	AC
R92	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R93	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R95	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R96	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R97	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R98	9HJ0120336501	J	20k	1/16W	Chip 0603	AC
R99	9HJ0168436501	J	680k	1/16W	Chip 0603	AC
R100	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R101	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R103	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R104	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R105	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R107	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R109	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R110	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R111	9HJ0133036502	J	33	1/16W	Chip 0603	AC
R112	9HJ0100036502	J	0	1/16W	Chip 0603	AC

9HJ7083204001 (PG-M15X)
9HJ7083114001 (PG-M15S)
MAIN UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
R113	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R114	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R115	9HJ0175236501	J	7.5k	1/16W	Chip 0603	AC
R116	9HJ0147036501	J	47	1/16W	Chip 0603	AC
R117	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R118	9HJ0147036501	J	47	1/16W	Chip 0603	AC
R120	9HJ0127336501	J	27k	1/16W	Chip 0603	AC
R121	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R122	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R123	9HJ0127336501	J	27k	1/16W	Chip 0603	AC
R124	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R126	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R127	9HJ0110636501	J	10M	1/16W	Chip 0603	AC
R128	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R129	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R132	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R133	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R134	9HJ0147036501	J	47	1/16W	Chip 0603	AC
R135	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R136	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R137	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R138	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R139	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R140	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R141	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R142	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R143	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R144	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R147	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R148	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R149	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R150	9HJ0118236501	J	1.8k	1/16W	Chip 0603	AC
R151	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R152	9HJ0182236503	J	8.2k	1/16W	Chip 0603	AD
R153	9HJ0115316501	J	15k	1/16W	Chip 0603	AD
R154	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R155	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R156	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R157	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R159	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R160	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R161	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R162	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R163	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R164	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R165	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R166	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R167	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R168	9HJ0110036501	J	10	1/16W	Chip 0603	AC
R169	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R170	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R171	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R172	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R173	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R174	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R175	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R176	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R177	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R178	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R179	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R180	9HJ0118134502	J	180	114W	Chip 1206	AC
R181	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R182	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R183	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R184	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R185	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R186	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R187	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R188	9HJ0133134501	J	330	1/4W	Chip 1206	AC
R189	9HJ0122134501	J	220	1/14W	Chip 1206	AC
R190	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R191	9HJ0133134501	J	330	1/4W	Chip 1206	AC
R192	9HJ0139134501	J	390	1/4W	Chip 1206	AC
R193	9HJ0139134501	J	390	1/4W	Chip 1206	AC
R194	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R195	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R196	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R197	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R198	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R199	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R200	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R201	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R202	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R203	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R204	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R205	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R206	9HJ0120336501	J	20k	1/16W	Chip 0603	AC
R207	9HJ0118216501	J	1.82k	1/16W	Chip 0603	AC
R208	9HJ0110316501	J	10k	1/16W	Chip 0603	AC
R209	9HJ0112216502	J	1.2k	1/16W	Chip 0603	AC
R210	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R213	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R214	9HJ0120216501	J	2k	1/16W	Chip 0603	AC
R215	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R216	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R217	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R218	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R219	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R220	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R222	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R223	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R224	9HJ0100036502	J	0	1/16W	Chip 0603	AC
R226	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R227	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R228	9HJ0175016501	J	75	1/16W	Chip 0603	AC
R229	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R230	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R231	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R234	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R235	9HJ0110031501	J	10	1W	Chip 2512	AC
R236	9HJ0110031501	J	10	1W	Chip 2512	AC
R237	9HJ0110031501	J	10	1W	Chip 2512	AC
R238	9HJ0110031501	J	10	1W	Chip 2512	AC
R239	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R240	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R241	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R242	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R243	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R244	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R245	9HJ0110136501	J	100	1/16W	Chip 0603	AC
R255	9HJ0100036502	J	0	1/16W	Chip 0603	AC
RP1	9HJ0110036503	J	10	1/16W	Chip	AC
RP6	9HJ0133036101	J	33	1/16W	Chip	AC
RP7	9HJ0133036101	J	33	1/16W	Chip	AC

MISCELLANEOUS PARTS

CON1	9HJ11155F2202	J	Connector, 15-pin	AM
J2	9HJ11022M2301	J	Jack, 2-pin	AC
J3	9HJ11070F2001	J	Jack, 7-pin	AG
J4	9HJ11141F4601	J	Jack, 14-pin	AE
J5	9HJ11040F2006	J	Jack, 4-pin	AF
JP1	9HJ11299F2202	J	Connector, 29-pin	AS
JP2	9HJ11009M3002	J	Jack, 100-pin	AU
JP4	9HJ11032M2304	J	Jack, 3-pin	AC
JP5	9HJ11050F2001	J	Jack, 5-pin	AF
TX1	9HJ11040F2305	J	RCA Jack	AC
	9HJ6100032001	J	Spring for, RCA Jack	AD

9HJ8083102001
THERMAL UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
U12	9HJ20LM393002	J	LM393	AF
U13	9HJ20LD1117S1	J	SOT223	AH
U15	9HJ20LD1117S1	J	SOT223	AH
U16	9HJ20LD1117S1	J	SOT223	AH
U17	9HJ20LD1117S1	J	SOT223	AH
U19	9HJ2074LVC141	J	74LVC14	AE
U20	9HJ20LM358002	J	LM358	AE
U21	9HJ20LD1117S1	J	SOT223	AH

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q1	9HJ08T2907A02	J	UMT2907A	AC
Q2	9HJ08T2222W01	J	SOT323	AC
Q3	9HJ08T2222W01	J	SOT323	AC
Q4	9HJ08FDS44351	J	FDS4435A	AL
Q5	9HJ08T2222W01	J	SOT323	AC
Q6	9HJ08T2222W01	J	SOT323	AC
Q7	9HJ08FDS44351	J	FDS4435A	AL
Q8	9HJ08T2222W01	J	SOT323	AC
Q9	9HJ08FDS66121	J	FDS6612A	AK
Q10	9HJ08FDS66121	J	FDS6612A	AK

DIODES

Ref. No.	Part No.	★	Description	Code
D1	9HJ091N414802	J	Diode, RLS4148	AC
D2	9HJ091N414802	J	Diode, RLS4148	AC
D3	9HJ091N414802	J	Diode, RLS4148	AC
D5	9HJ091N414802	J	Diode, RLS4148	AC
D6	9HJ091N414802	J	Diode, RLS4148	AC
D7	9HJ091N414802	J	Diode, RLS4148	AC
D9	9HJ09RB051401	J	Diode, RB051L-40	AF
D10	9HJ091N414802	J	Diode, RLS4148	AC
D11	9HJ09RB051401	J	Diode, RB051L-40	AF

COILS

Ref. No.	Part No.	★	Description	Code
L1	9HJ0301043301	J	Inductor, 1µH	AG
L2	9HJ0301043301	J	Inductor, 1µH	AG
L3	9HJ0301043301	J	Inductor, 1µH	AG
L4	9HJ0301043301	J	Inductor, 1µH	AG

CAPACITORS

Ref. No.	Part No.	★				Code
C3	9HJ0210647101	J	1000p	50V	Ceramic	AC
C4	9HJ0210887101	J	0.1	50V	Ceramic	AC
C5	9HJ0233647201	J	3.3	50V	Ceramic	AC
C6	9HJ0210887101	J	0.1	50V	Ceramic	AC
C7	9HJ0210070901	J	10	25V	Tantalum	AE
C8	9HJ0210070901	J	10	25V	Tantalum	AE
C9	9HJ0210070901	J	10	25V	Tantalum	AE
C10	9HJ0210074502	J	10	16V	Tantalum	AD
C11	9HJ0210074502	J	10	16V	Tantalum	AD
C12	9HJ0210074502	J	10	16V	Tantalum	AD
C13	9HJ0210074502	J	10	16V	Tantalum	AD
C14	9HJ0210070901	J	10	25V	Tantalum	AE
C15	9HJ0210070901	J	10	25V	Tantalum	AE
C16	9HJ0210070901	J	10	25V	Tantalum	AE
C17	9HJ0210070901	J	10	25V	Tantalum	AE
C18	9HJ0210070901	J	10	25V	Tantalum	AE
C20	9HJ0210547102	J	100p	50V	Ceramic	AC
C21	9HJ0210547102	J	100p	50V	Ceramic	AC
C22	9HJ0210547102	J	100p	50V	Ceramic	AC
C23	9HJ0210887101	J	0.1	50V	Ceramic	AC
C24	9HJ0210887101	J	0.1	50V	Ceramic	AC
C25	9HJ0210070901	J	10	25V	Tantalum	AE
C26	9HJ0247745103	J	0.047	25V	Ceramic	AC
C27	9HJ0210074502	J	10	16V	Tantalum	AD
C28	9HJ0210074502	J	10	16V	Tantalum	AD
C32	9HJ0247745103	J	0.047	25V	Ceramic	AC
C33	9HJ0247745103	J	0.047	25V	Ceramic	AC
C34	9HJ0210070901	J	10	25V	Tantalum	AE
C35	9HJ0210074502	J	10	16V	Tantalum	AD
C36	9HJ0247745103	J	0.047	25V	Ceramic	AC
C37	9HJ0210070901	J	10	25V	Tantalum	AE
C38	9HJ0210070901	J	10	25V	Tantalum	AE
C39	9HJ0210070901	J	10	25V	Tantalum	AE
C40	9HJ0210747101	J	0.01	50V	Ceramic	AC

RESISTORS

Ref. No.	Part No.	★				Code
R1	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R2	9HJ0168236501	J	6.8k	1/16W	Chip 0603	AC
R3	9HJ0133336501	J	33k	1/16W	Chip 0603	AC
R5	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R6	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R7	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R8	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R9	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R10	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R11	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R12	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R13	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R14	9HJ0149276501	J	4.99k		Chip 0805	AC
R15	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R16	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R17	9HJ0110316501	J	10k	1/16W	Chip 0603	AC
R19	9HJ0139139501	J	390	1/10W	Chip 0805	AC
R20	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R21	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R22	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R23	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R24	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R25	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R28	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R29	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R30	9HJ0110236502	J	1k	1/16W	Chip 0603	AC
R31	9HJ0133236501	J	3.3k	1/16W	Chip 0603	AC
R34	9HJ0116316501	J	16.9k	1/16W	Chip 0603	AC
R37	9HJ0128216501	J	2.87k	1/16W	Chip 0603	AC
R40	9HJ0116316501	J	16.9k	1/16W	Chip 0603	AC
R41	9HJ0123316101	J	23.2k	1/16W	Chip 0603	AC
R48	9HJ0147236501	J	4.7k	1/16W	Chip 0603	AC
R49	9HJ0112234501	J	1.2k	1/4W	Chip 1206	AD
R50	9HJ0118134502	J	180	1/4W	Chip 1206	AC
R51	9HJ0175034501	J	75	1/4W	Chip 1206	AD
R52	9HJ0112234501	J	1.2k	1/4W	Chip 1206	AD
R53	9HJ0118134502	J	180	1/4W	Chip 1206	AC
R54	9HJ0175034501	J	75	1/4W	Chip 1206	AD
R55	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R56	9HJ0112234501	J	1.2k	1/4W	Chip 1206	AD
R57	9HJ0118134502	J	180	1/4W	Chip 1206	AC
R58	9HJ0175034501	J	75	1/4W	Chip 1206	AD
R59	9HJ0112234501	J	1.2k	1/4W	Chip 1206	AD
R60	9HJ0118134502	J	180	1/4W	Chip 1206	AC
R61	9HJ0175034501	J	75	1/4W	Chip 1206	AD
R62	9HJ0112234501	J	1.2k	1/4W	Chip 1206	AD
R63	9HJ0118134502	J	180	1/4W	Chip 1206	AC
R64	9HJ0175034501	J	75	1/4W	Chip 1206	AD
R65	9HJ0112234501	J	1.2k	1/4W	Chip 1206	AD
R66	9HJ0118134502	J	180	1/4W	Chip 1206	AC
R67	9HJ0175034501	J	75	1/4W	Chip 1206	AD
R68	9HJ0112234501	J	1.2k	1/4W	Chip 1206	AD
R69	9HJ0118134502	J	180	1/4W	Chip 1206	AC
R70	9HJ0175034501	J	75	1/4W	Chip 1206	AD
R71	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R72	9HJ0110139501	J	100	1/10W	Chip 0805	AC
R73	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R74	9HJ0110139501	J	100	1/10W	Chip 0805	AC
R75	9HJ0110336502	J	10k	1/16W	Chip 0603	AC
R76	9HJ0110139501	J	100	1/10W	Chip 0805	AC
R77	9HJ0110139501	J	100	1/10W	Chip 0805	AC
R79	9HJ0100039501	J	0	1/10W	Chip 0805	AC
R81	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R82	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R83	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R84	9HJ0110436501	J	100k	1/16W	Chip 0603	AC
R85	9HJ0122336501	J	22k	1/16W	Chip 0603	AC
R86	9HJ0168236501	J	6.8k	1/16W	Chip 0603	AC
R87	9HJ0100039501	J	0	1/10W	Chip 0805	AC

Ref. No.	Part No.	★	Description	Code

9HJ8083102001
THERMAL UNIT (Continued)

RT1	9HJ0110310001	J	Thermistor, 10k TH20-3H103FT	AE
RT2	9HJ0110310001	J	Thermistor, 10k TH20-3H103FT	AE

MISCELLANEOUS PARTS

J1	9HJ11039M2304	J	Jack, 3-pin	AD
J2	9HJ11039N2302	J	Jack, 3-pin	AD
J3	9HJ11029M2302	J	Jack, 2-pin	AD
J4	9HJ11039M2303	J	Jack, 3-pin	AD
J5	9HJ11039M2301	J	Jack, 3-pin	AD
J6	9HJ11142F1302	J	Jack, 14-pin	AE
JP1	9HJ11349M3001	J	Jack, 34-pin	AV

9HJ8083105001
IR UNIT

CAPACITOR

C3	9HJ0247074901	J	47	16V	Tantalum		AG

RESISTOR

R4	9HJ0147036501	J	47	1/16W	Chip 0603		AC

MISCELLANEOUS PARTS

J3	9HJ11032M1305	J	Jack, 3-pin	AL
IR1	9HJ20FM603801	J	FM6038LM	AL

9HJ8083108001
SW UNIT

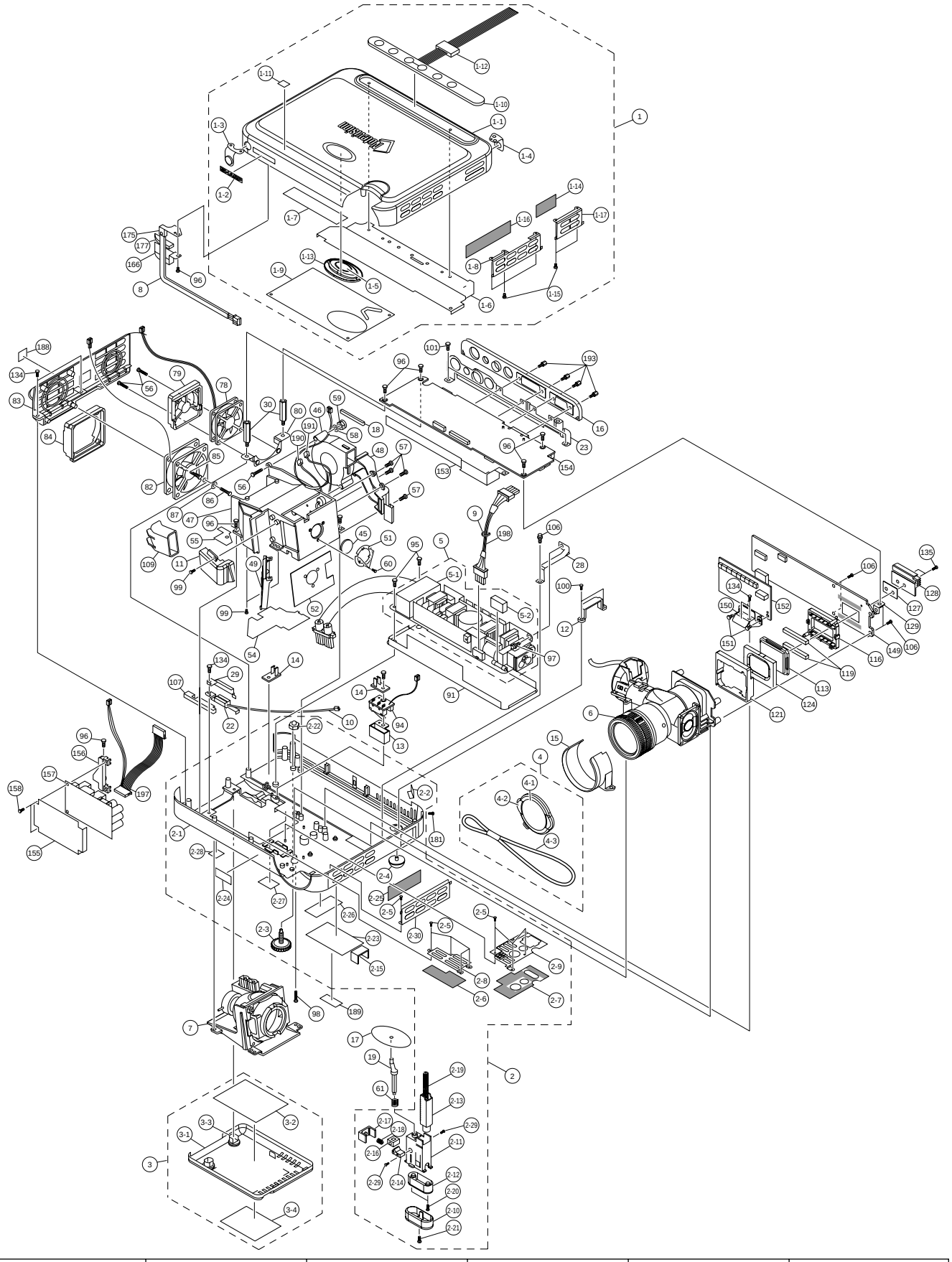
MISCELLANEOUS PARTS

J4	9HJ4283126001	J	Wire 2-pin 220mm	AL
SW1	9HJ4383104001	J	Micro Switch DM-01	AL

CABINET AND MECHANICAL PARTS

Ref. No.	Part No.	★	Description	Code
1	9HJ7083125001	J	Top Cover Module (PG-M15S)	BV
1	9HJ7083126001	J	Top Cover Module (PG-M15X)	BV
1-1	9HJ6183116031	J	ID Top Cover (PG-M15X)	BR
1-1	9HJ6183116021	J	ID Top Cover (PG-M15S)	BR
1-2	9HJ3583101001	J	Badge, "SHARP"	AN
1-3	9HJ5183116001	J	IR Receiver Front Cover	AH
1-4	9HJ5183117001	J	IR Receiver Rear Cover	AH
1-5	9HJ5183126001	J	Ellipse Active	AL
1-6	9HJ5183134001	J	Cover	AH
1-7	9HJ5183147001	J	Insulating Cover (Top)	AD
1-8	9HJ6183111001	J	Grid Mount (Top-Front)	AL
1-9	9HJ6183142001	J	Heat Shield Plate	AK
1-10	9HJ7683102001	J	Key Pad	AY
1-11	9HJ3683115001	J	Caution Label A	AF
1-12	9HJ4183101001	J	FPC Core (Keypad)	AF
1-13	9HJ5183127001	J	Ellipse	AN
1-14	9HJ6183138001	J	Top Rear Cover Net	AD
1-15	9HJ6100022001	J	Push Nut, x5	AD
1-16	9HJ6183136001	J	Cover Net	AF
1-17	9HJ6183112001	J	Grid Mount (Top Rear)	AK
2	9HJ7083121001	J	Bottom Cover Module (PG-M15S)	BU
2	9HJ7083128001	J	Bottom Cover Module (PG-M15X)	BU
2-1	Not Available	J	ID Bottom Cover	BQ
2-2	9HJ5183153001	J	Ballast Unit Corner Cover	AD
2-3	9HJ5283101001	J	Rear Ajduster	AH
2-4	9HJ5283102001	J	Rubber Support	AH
2-5	9HJ6100022001	J	Push Nut, x9	AD
2-6	9HJ6183149001	J	Bottom Cover Iron Net 1	AF
2-7	9HJ6183150001	J	Bottom Cover Iron Net 2	AF
2-8	9HJ6183152001	J	Holder Bottom Cover Iron Net 1	AF
2-9	9HJ6183153001	J	Holder Bottom Cover Iron Net 2	AF
2-10	9HJ5183119001	J	Adjuster Big	AL
2-11	9HJ5183120001	J	Adjuster Bracket	AM
2-12	9HJ5183121001	J	Adjuster PS	AL
2-13	9HJ5183122001	J	Adjuster Gear	AL
2-14	9HJ5183124001	J	Slide Part	AG
2-15	9HJ5183130001	J	Top Bracket	AG
2-16	9HJ5183154001	J	Push Bar Guide	AK
2-17	9HJ5183155001	J	Adjuster Side braket	AH
2-18	9HJ6183122001	J	Spring 1	AF
2-19	9HJ6183125001	J	Gear Spring	AG
2-20	9HJ851A320050	J	Screw M2x5	AD
2-21	9HJ850A123060	J	Screw M3x6	AD
2-22	9HJ8603142035	J	Cap M4x0.7p	AD
2-23	9HJ3583106001	J	Model Specification Label (PG-M15S)	AG
2-23	9HJ3583202001	J	Model Specification Label (PG-M15X)	AG
2-24	9HJ3583108001	J	Lens Caution Label	AF
2-25	9HJ6183136001	J	Cover Net	AF
2-26	9HJ3583117001	J	Label Tripod	AN
2-27	9HJ3583114001	J	Interlook Label	AF
2-28	9HJ3683115001	J	Caution Label A	AF
2-29	9HJ854A122024	J	Screw M2x2.4	AD
2-30	9HJ6183110001	J	Holder Bottom Caver Iron Net 3	AM
3	9HJ7083129001	J	Lamp Cover Ass'y	AX
3-1	9HJ5183113001	J	Lamp Replacement Cover	AV
3-2	9HJ6183143001	J	Heat Barrier (Replacement Cover)	AG
3-3	9HJ6100031001	J	Screw M3x8-2.5	AD
3-4	9HJ3583107001	J	Lamp Caution Label	AG
4	9HJ7083117001	J	Lens Cap Ass'y	AU
4-1	9HJ5183128001	J	Projection Lens Cap	AM
4-2	9HJ5183129001	J	Button, Projection Lamp Cap	AL
4-3	9HJ5183150001	J	Cap Strap	AL
5	9HJ7083123001	J	Ballast Unit	DA
5-1	9HJ7583101001	J	Ballast Unit Ass'y (+PFC)	DA
5-2	9HJ5183142002	J	Fuse Cover	AD
6	*Refer to Optical Engine Mechanical Parts*			
⚠ 7	BQC-PGM15X//1	J	Lamp Full Ass'y	CX
8	9HJ4283106001	J	Extension Cable 3-pin (Main-IR)	AL
9	9HJ5100001001	J	Wire Holder	AD
10	9HJ4383102003	J	Thermal Switch	AM
11	9HJ5183137001	J	Exhaust Guide	AL
12	9HJ5183139001	J	AC Cord Holder	AF
13	9HJ5183141001	J	Interlock Cover	AK
14	9HJ5183148001	J	Wire Holder (Ballast Unit)	AD
15	9HJ5183108001	J	Protection Lens Cover	AR
16	9HJ5183114002	J	Terminal Sheet	AV
17	9HJ5283116001	J	Rubber (Height Adjuster)	AD
18	9HJ5283119001	J	Fan Spacer	AQ
19	9HJ6183128002	J	Push Bar	AL
22	9HJ6183121003	J	Thermal Switch Holder	AF
23	9HJ6183126002	J	Thermal Sheet Holder	AL
28	9HJ6183155001	J	Grounding Sheet	AD
29	9HJ6183403001	J	Light Cut Sheet	AF
30	9HJ6183406001	J	Shaft x 2	AD
45	9HJ2383110002	J	Optical UV-IR Filter	AY
46	9HJ4983103001	J	Nidec Scirocco Fan (Blow)	BK
47	9HJ5183104001	J	Lamp Housing	BP
48	9HJ5183106001	J	Blower Wind Pipe	AL
49	9HJ5183402001	J	Light Cut Lamp Peek	AZ
50	9HJ5283126001	J	Insulating Cover	AD
51	9HJ6181517001	J	Bracket UV-IR Filter	AF
52	9HJ6183144001	J	Lamp House Aluminum Foil	AF
53	9HJ6183145001	J	Spacer	AF
54	9HJ6183147001	J	Lamp House Top Aluminum Foil	AF
55	9HJ6183161002	J	Shield (IR Unit)	AF
56	9HJ851A323200	J	Screw M3x20	AD
57	9HJ85WA126060	J	Screw M2.6x6	AD
58	9HJ860A123024	J	Nut M3x0.5p	AD
59	9HJ87SR130009	J	Spring Washer	AD
60	9HJ85YA322025	J	Screw M2.0x2.5	AD
61	9HJ6183156001	J	Spring (Height Adjuster)	AD
78	9HJ4983102001	J	Fan	BB
79	9HJ5283124001	J	Spacer (Fan Ass'y)	AK
80	9HJ6183119001	J	Holder (Fan Ass'y)	AG
82	9HJ4983108001	J	Fan	BC
83	9HJ5183109003	J	Exhaust Window	AX
84	9HJ5283123001	J	Spacer (Fan Ass'y)	AG
85	9HJ851A323200	J	Screw M3x20	AD
86	9HJ85WA326160	J	Screw N2.6x16	AD
87	9HJ87SR130009	J	Spring Washer	AD
91	9HJ5183132001	J	Ballast Unit Cover	AL
94	9HJ8083108001	–	SW Unit	—
95	9HJ851A123040	J	Screw M3x4	AD
96	9HJ851A123050	J	Screw M3x5	AD
97	9HJ851A124040	J	Screw M4x4	AD
98	9HJ851A323300	J	Screw M3x30	AD
99	9HJ85WA126060	J	Screw M2.6x6	AD
100	9HJ851A322050	J	Screw M2x5	AD
106	9HJ851C224050	J	Screw M4x5	AD
107	9HJ5283125001	J	Heat Insration Rubber	AD
109	9HJ5283406001	J	Exhaust Guide	AF
113	9HJ48817DMD01	J	DMD Unit (PG-M15S)	EQ
113	9HJ48818DMD01	J	DMD Unit (PG-M15X)	FT
116	9HJ5183110001	J	DMD Holde	AR
119	9HJ5281701001	J	Spacer	AU
121	9HJ5283104002	J	Spacer (DMD Unit)	AF
124	9HJ5283109003	J	Spacer (DMD Unit)	AF
127	9HJ5783101001	J	Teflon Tape	AH
128	9HJ6183101001	J	Sheild (DMD Unit)	AG
129	9HJ6183107001	J	Angle (DMD Unit)	AD
134	9HJ851A323060	J	Screw M3x6	AD
135	9HJ851A1AF032	J	Screw	AD

CABINET AND MECHANICAL PARTS / GEHÄUSE UND MECHANISCHE BAUTEILE



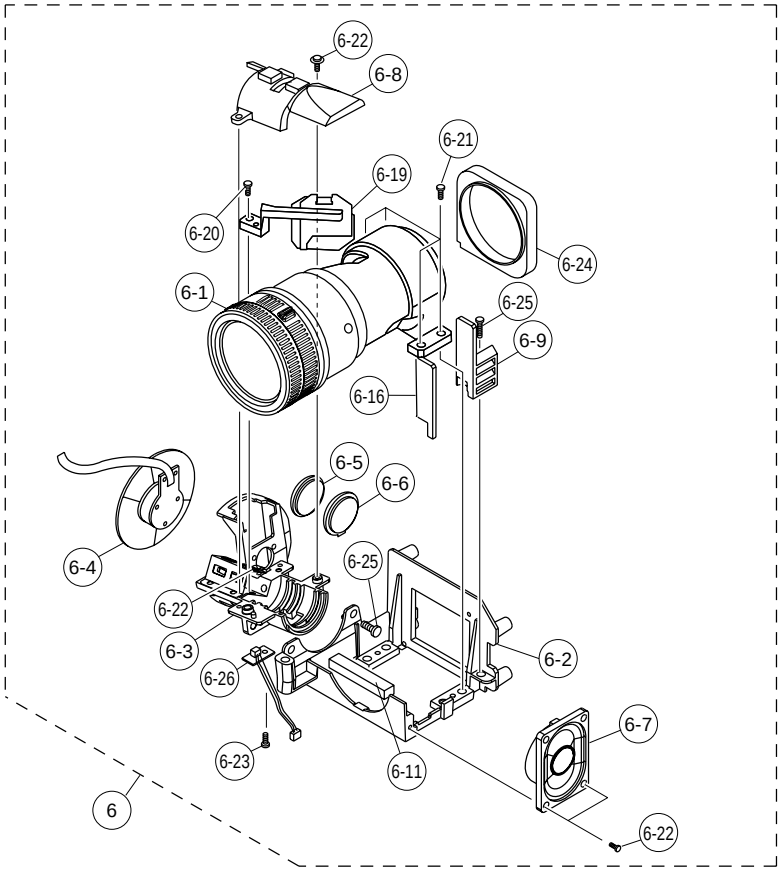
CABINET AND MECHANICAL PARTS
(Continued)

Ref. No.	Part No.	★	Description	Code
149	9HJ8083101001	J	Formatter Unit (PG-M15S)	CQ
149	9HJ8083201001	J	Formatter Unit (PG-M15X)	CR
150	9HJ6183108001	J	Angle (Thermal Unit)	AF
151	9HJ851A320050	J	Screw M2x5	AD
152	9HJ8083102001	–	Thermal Unit	—
153	9HJ5183144001	J	Main Unit Connector Cover	AF
154	9HJ7083204001	–	Main Unit (PG-M15X)	—
154	9HJ7083114001	–	Main Unit (PG-M15S)	—
155	9HJ5183131001	J	DC to DC Unit Cover	AH
156	9HJ5183138001	J	Holder (DC to DC Unit)	AL
157	9HJ7583102001	J	DC to DC Unit	CA
158	9HJ5100061001	J	Plastic Rivet	AD
166	9HJ5183151001	J	IR Unit Cover	AD
175	9HJ8083105001	–	IR Unit	—
177	9HJ5283127001	J	Spacer (IR Unit)	AD
181	9HJ854A322040	J	Screw M2x4	AD
188	9HJ3683116001	J	Caution Label B	AF
189	9HJ3583109001	J	Serial No. Label	AD
190	9HJ4283127001	J	Thermal Fuse	AP
191	9HJ5283129001	J	Thermal Fuse Spacer	AF
193	9HJ85005AG040	J	D-Sub Shaft, x4	AD
197	9HJ4283103001	J	Connecting Cord (DC to DC - Thermal)	AR
198	9HJ4283104001	J	Connecting Cord (DC to DC - Ballast)	AP
	9HJ7083119001	J	Holder (Lamp)	CX
	9HJ3683115001	J	Caution Label A	AD
	9HJ3583113001	J	Both Sides Tape Mirror	AF
	9HJ7083122001	J	Lamp Housing Unit Ass'y	BT

OPTICAL ENGINE MECHANICAL PARTS

Ref. No.	Part No.	★	Description	Code
6	9HJ7083120001	J	Engine Module	DF
6-1	9HJ7083132001	J	Projection Objective Lens Ass'y	CZ
6-2	9HJ6183113001	J	Engine Base 1	BG
6-3	9HJ7083131001	J	Engine Base 2 Ass'y	BU
6-4	9HJ2383119002	J	Color Wheel	CF
6-5	9HJ2383306001	J	Aspherical Condenser Lens 1	BK
6-6	9HJ2383106011	J	Aspherical Condenser Lens 2	BA
6-7	9HJ4983104001	J	Speaker 2W	AT
6-8	9HJ7083130001	J	Condenser Lens Cover	AX
6-9	9HJ5183140001	J	Insulating Cover	AH
6-11	9HJ5283103001	J	Spacer for Project Lens	AF
6-16	9HJ5283120001	J	Spacer	AD
6-19	9HJ7083133001	J	Reflection Mirror Ass'y	BC
6-20	9HJ851C224050	J	Screw M3x5	AD
6-21	9HJ851A323060	J	Screw M3x6	AD
6-22	9HJ851D122050	J	Screw M2x5	AD
6-23	9HJ851A323080	J	Screw M3x8	AD
6-24	9HJ5283108001	J	Spacer for Engine Base 1-Lens	AD
6-25	9HJ854A323120	J	Screw M3x12 S	AD
6-26	9HJ7683101002	J	Photo Sensor Unit Ass'y	AV

OPTICAL ENGINE MECHANICAL PARTS / TEILE FÜR OPTIKMECHANISMUS



Ref. No.	Part No.	★	Description	Code

SUPPLIED ACCESSORIES

	9HJ3683101001	J	Warranty Card (U.S)	AH
	9HJ3683102001	J	Warranty Card (Australia)	AR
	9HJ3683104001	J	CD-ROM	AM
	9HJ3683107001	J	Projector operation manual	AZ
	9HJ3683110001	J	Projector quick reference guide	AQ
	9HJ3683115001	J	Canadian Paper O/M Requested Sheet (U.S, Canada)	AD
	9HJ7083127001	J	Express Repair Package (U.S)	BU
	9HJ7083128001	J	Express Repair Package (Canada)	BU
	9HJ3683118001	J	Warranty Card (Canada)	AG
	9HJ3683123001	J	Questionnaire Card	AG
	9HJ4283111001	J	Computer RGB Cable	BC
	9HJ4283112001	J	Video Cable	AN
	9HJ4283113001	J	S-Video Cable	AN
⚠	9HJ4283114001	J	AC Cord (U.S, Canada)	AS
⚠	9HJ4283116001	J	AC Cord (Europe, except U.K.)	BB
⚠	9HJ4283117001	J	AC Cord (U.K, HongKong, Singapore)	BB
⚠	9HJ4283118001	J	AC Cord (Australia, NewZealand, Oceania)	BB
	9HJ4283119001	J	DVI/VGA Cable	BB
	9HJ4283120001	J	PC Audio Cable	AM
	9HJ4283121001	J	AV Audio Cable	AQ
	9HJ4283122001	J	USB Mouse Control Cable	AS
	9HJ4283123001	J	DIN-D-sub RS-232C Cable	AT
	9HJ4283124001	J	DVI/VGA Adapter	AX
	9HJ4683101001	J	Two AAA size batteries	AG
	9HJ5383101001	J	Soft Carrying Pouch	BD
	9HJ7583104001	J	Remote Controller	BS

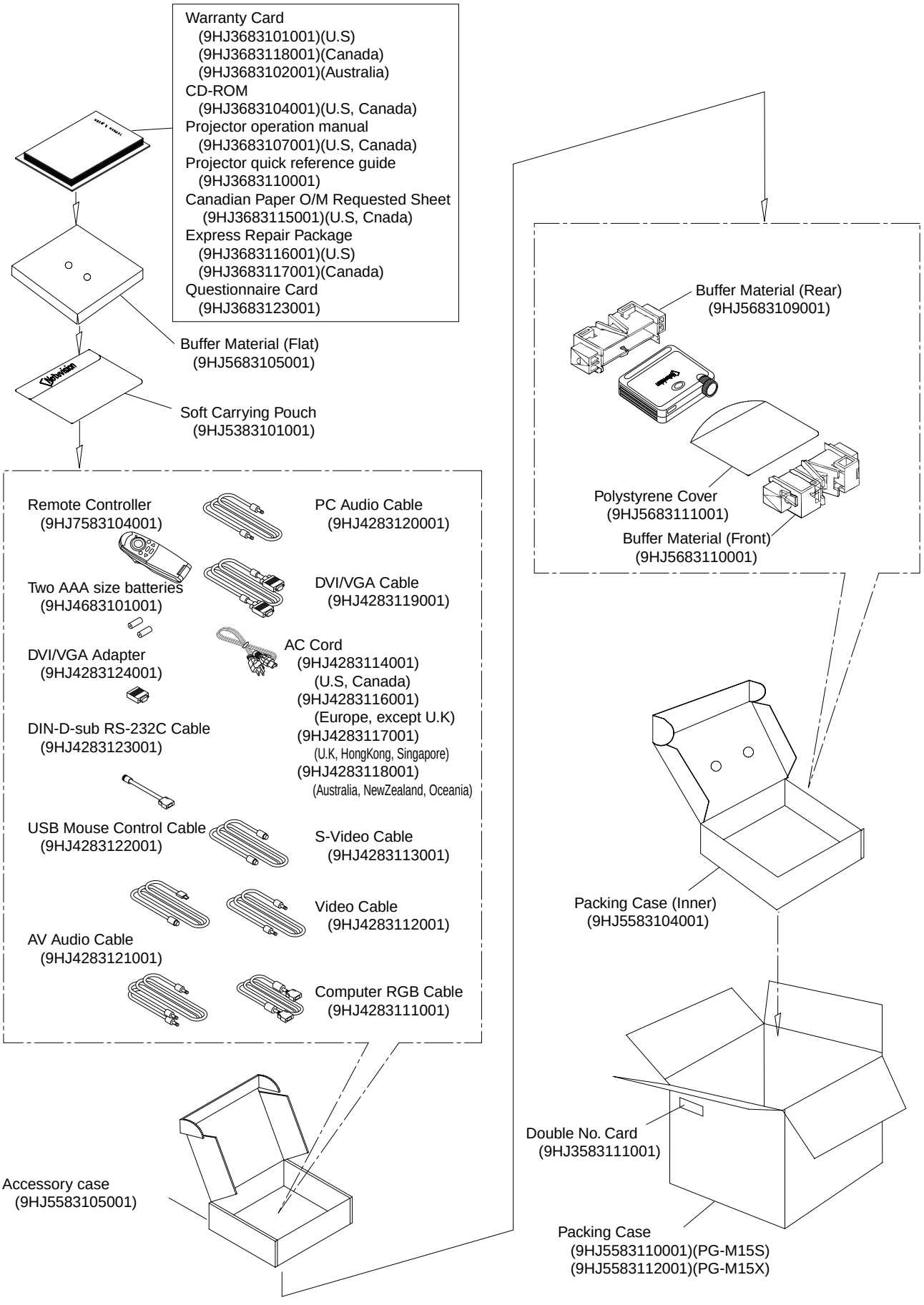
PACKING PARTS
(NOT REPLACEMENT ITEM)

	9HJ5583112001	–	Packing Case (PG-M15X)	—
	9HJ5583110001	–	Packing Case (PG-M15S)	—
	9HJ5683111001	–	Polystyrene Cover	—
	9HJ3583111001	–	Double No. Card	—
	9HJ5583104001	–	Packing Case (Inner)	—
	9HJ5583105001	–	Accessory Case	—
	9HJ5683105001	–	Buffer Material (Flat)	—
	9HJ5683109001	–	Buffer Material (Rear)	—
	9HJ5683110001	–	Buffer Material (Front)	—

SERVICE JIGS
(Use for servicing)

	9HJ4283128001	J	Extention cable 100-pin	BQ
	9HJ4283129001	J	Extention cable 34-pin	BP

PACKING OF THE SET / VERPACKEN DES GERÄTS



PARTS LIST

PARTS REPLACEMENT

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

Les pieces marquées "⚠" sont importantes pour maintenir la sécurité de l'appareil. Ne remplacer ces pieces que par des pieces dont le numéro est spécifié pour maintenir la sécurité et protéger le bon fonctinnement de l'appareil.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

in **USA**: Contact your nearest SHARP Parts Distributor.
For location of SHARP Parts Distributor,
Please call Toll-Free; 1-800-BE-SHARP

in **CANADA**: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100.

ERSATZTEILLISTE

AUSTAUSCH VON TEILEN

Ersatzteile, die besondere Sicherheitseigenschften haben, sind in dieser Anleitung markiert. Elektrische Komponenten mit solchen Eigenshaften sind in den Ersatzteil durch "⚠" gekenn-zeichnet.
Der Gebrauch von Ersatzteilen, die nicht deselben Sicherheits-eigenschaften haben wie die vom Hersteller empfohlenen ud in der Bedienungsanleitung angegebenen, können zur Ursache von Blitzeinschlägen, Bränden und anderen Gefahren werden.

"WIE MAN ERSATSTEILE BESTELLT"

Damit Ihre Bestellung promt und korrekt ausgeführt wird, geben Sie bitte folgende Informationen.

1. MODELL NR.
2. REF. NR.
3. ERSATZTEIL NR.
4. BESCHREIBUNG
5. KODE
6. QUANTITÄT

★ MARK: SPARE PARTS-DELIVERY SECTION

★ MARKIERUNG : ERSATZTEILE-LIEFERUNG

Ref. No.	Part No.	★	Description	Code

AN-M15T

1	9AQAN-M15T-01	J	Installation Adapter	BN
2	9AQAN-Z7T-03	J	Spacer	AN
3	9AQAN-M15T-02	J	Model Label	AL

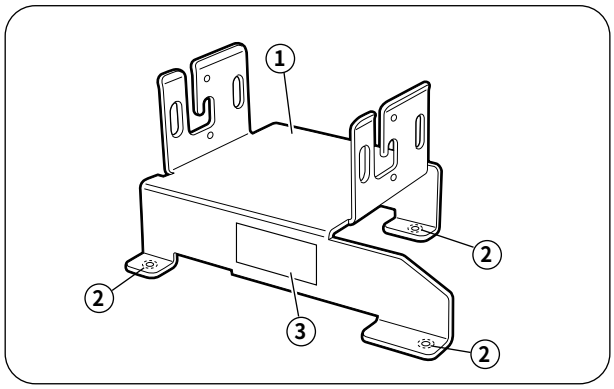
SUPPLIED ACCESSORIES

1	9AQAN-M15T-03	J	Screw M3x8	AG
2	9AQAN-NV4T-14	J	Screw M6x16	AN
	9AQAN-M15T-11	J	Operation Manual	AU
	9AQAN-15AG2-08	J	Polystyrene Bage	AN
	9AQAN-NV4T-16	J	Polystyrene Bage	AM

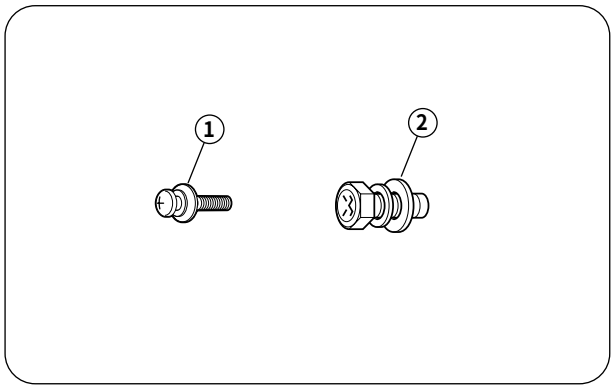
PACKING PARTS
(NOT REPLACEMENT ITEM)

	9AQAN-M15T-04	–	Packing Case	—
	9AQAN-M15T-06	–	Pad (Bottom)	—
	9AQAN-M15T-07	–	Pad (Base)	—
	9AQAN-M15T-08	–	Pad (Top)	—
	9AQAN-M15T-09	–	Mirror Mat	—

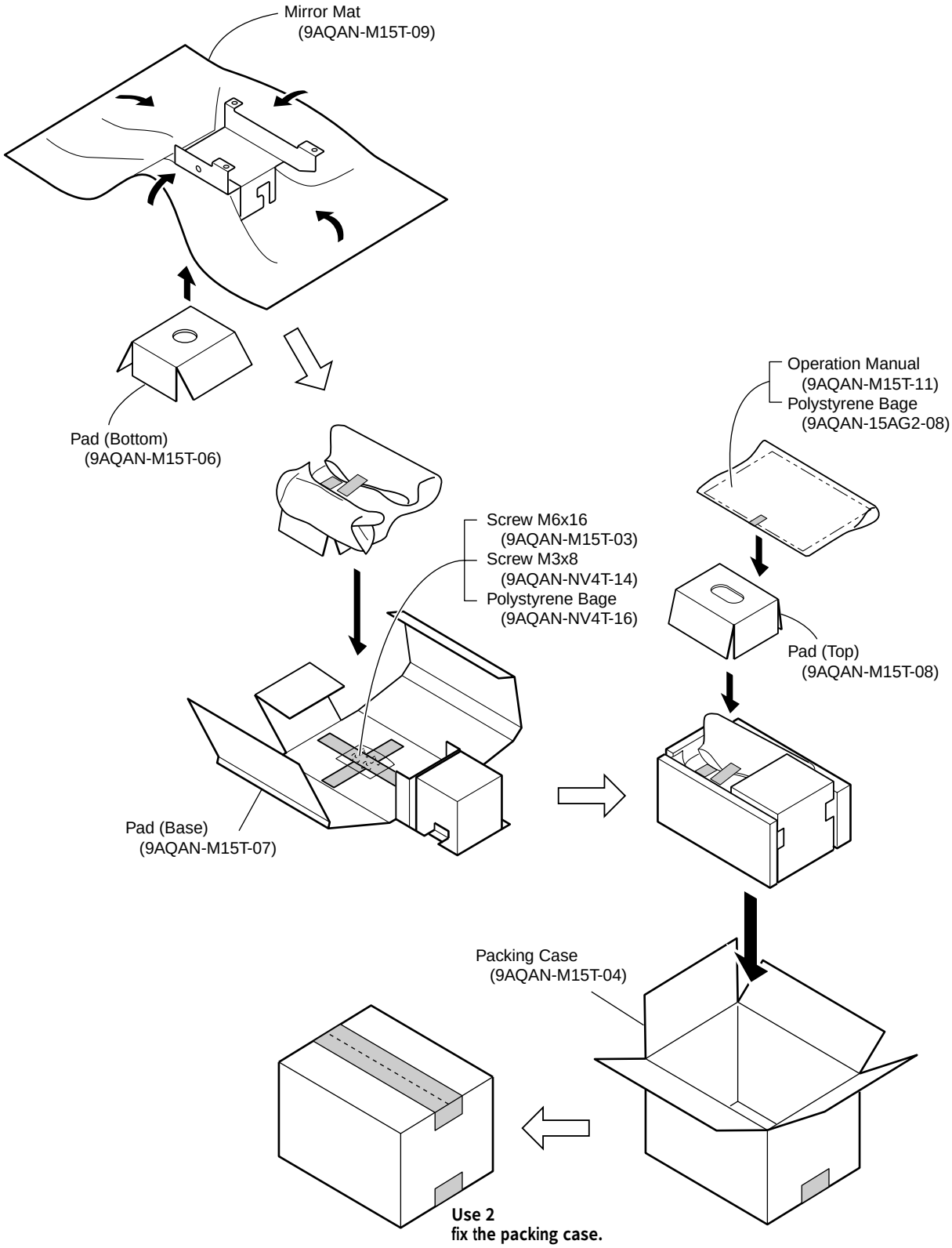
AN-M15T



ACCESSORIES



PACKING OF THE SET / VERPACKEN DES GERÄTS



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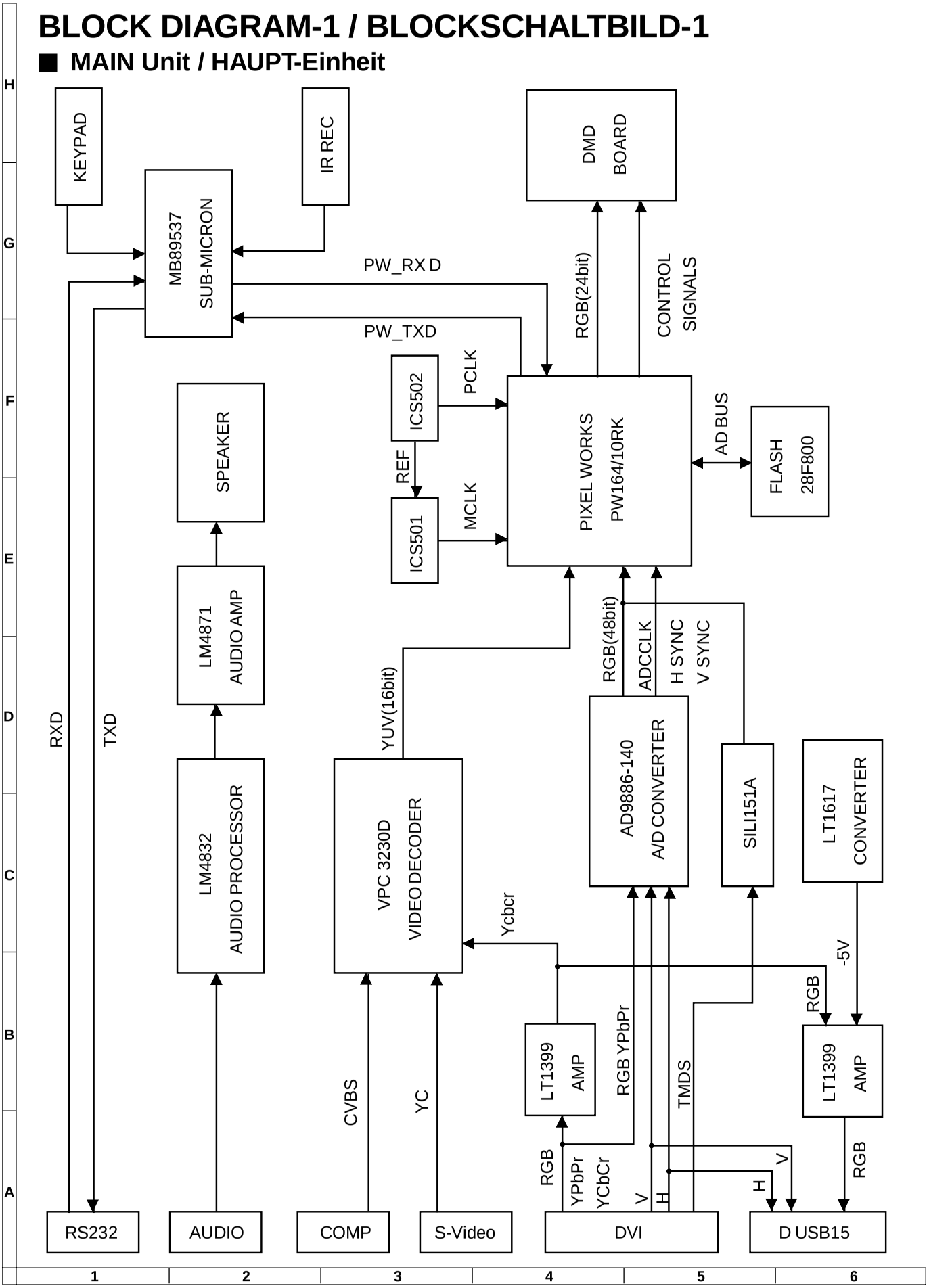
SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan

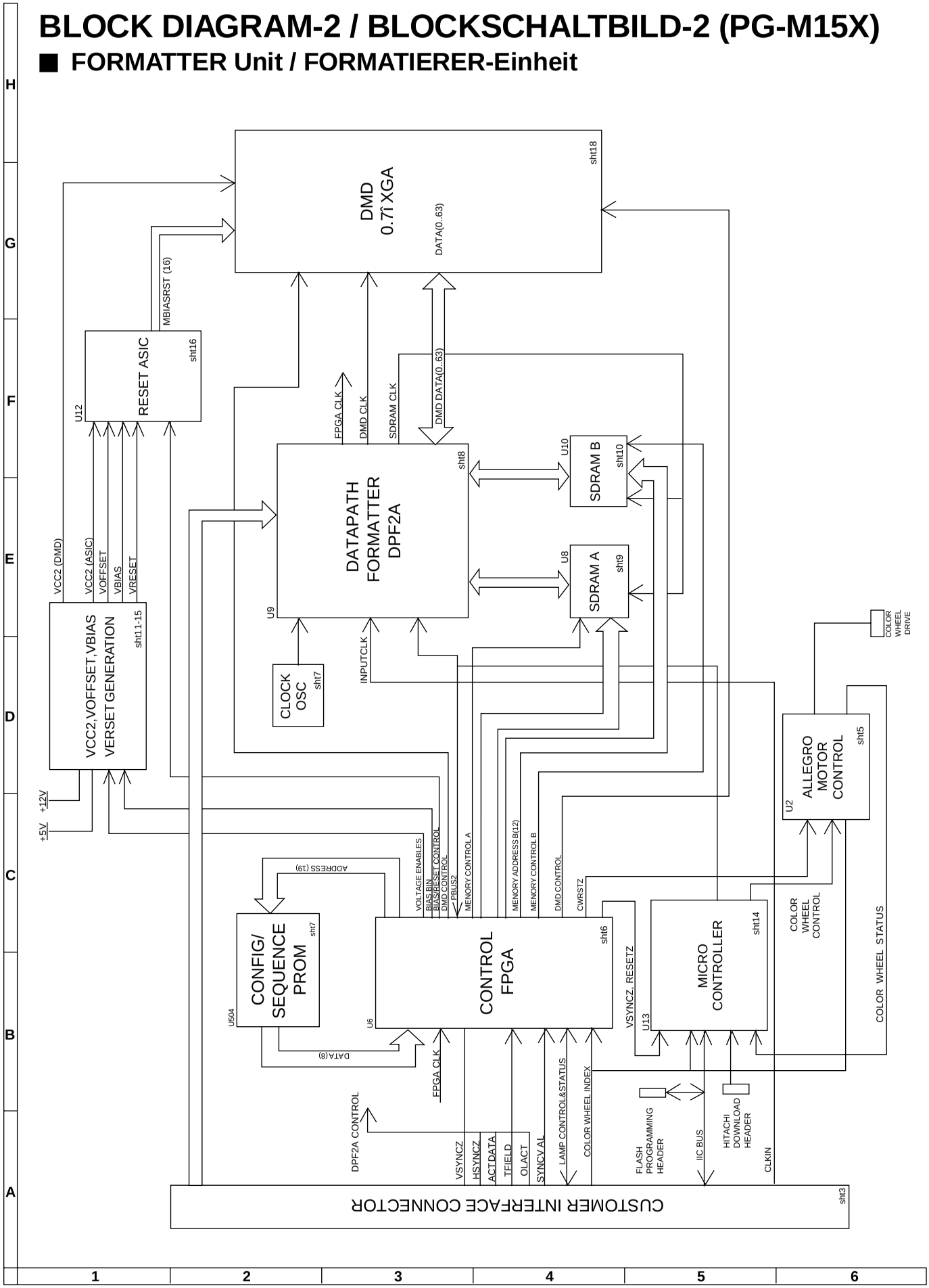
BLOCK DIAGRAM-1 / BLOCKSCHALTBILD-1

■ MAIN Unit / HAUPT-Einheit



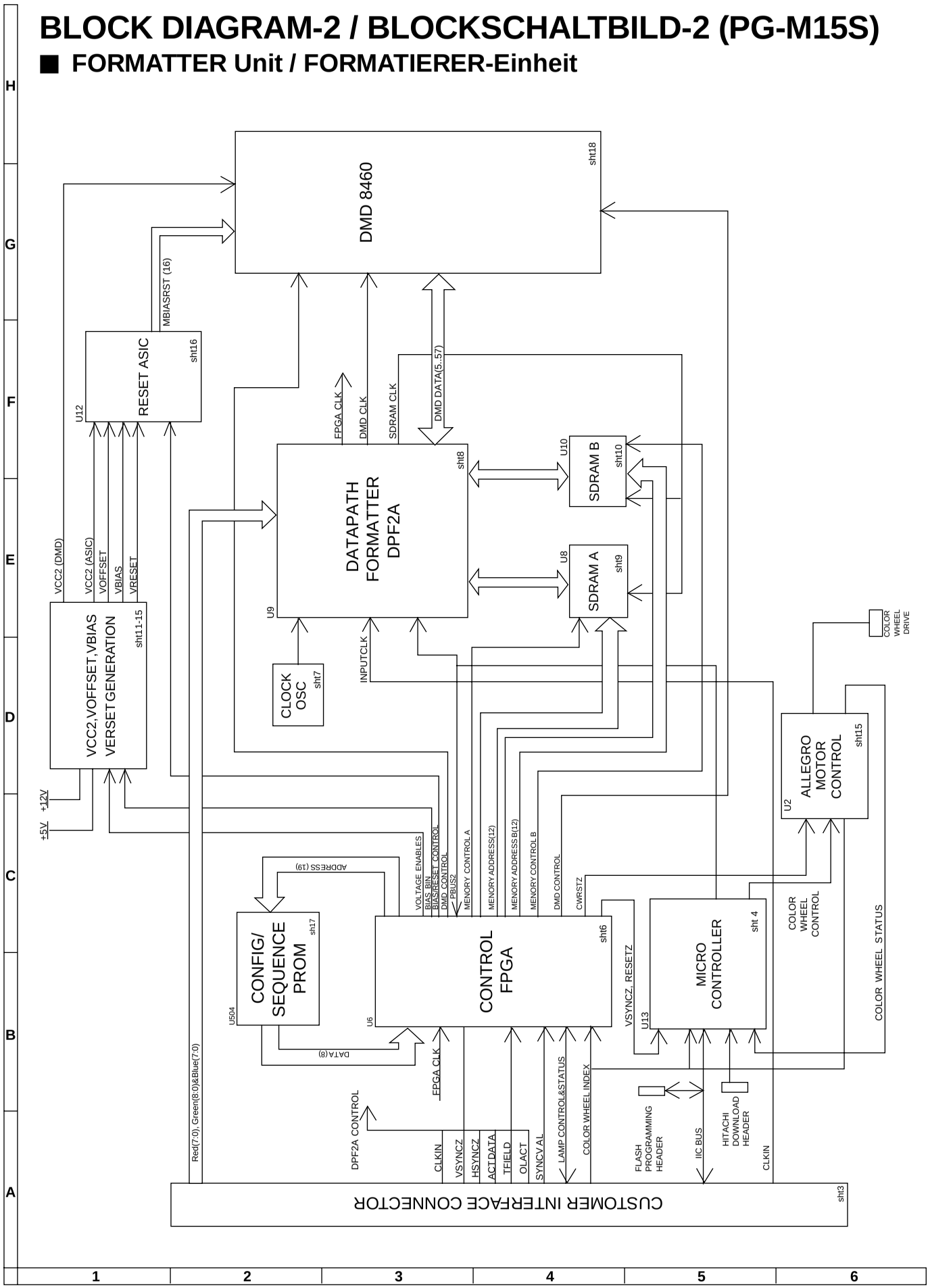
BLOCK DIAGRAM-2 / BLOCKSCHALTBILD-2 (PG-M15X)

■ FORMATTER Unit / FORMATIERER-Einheit



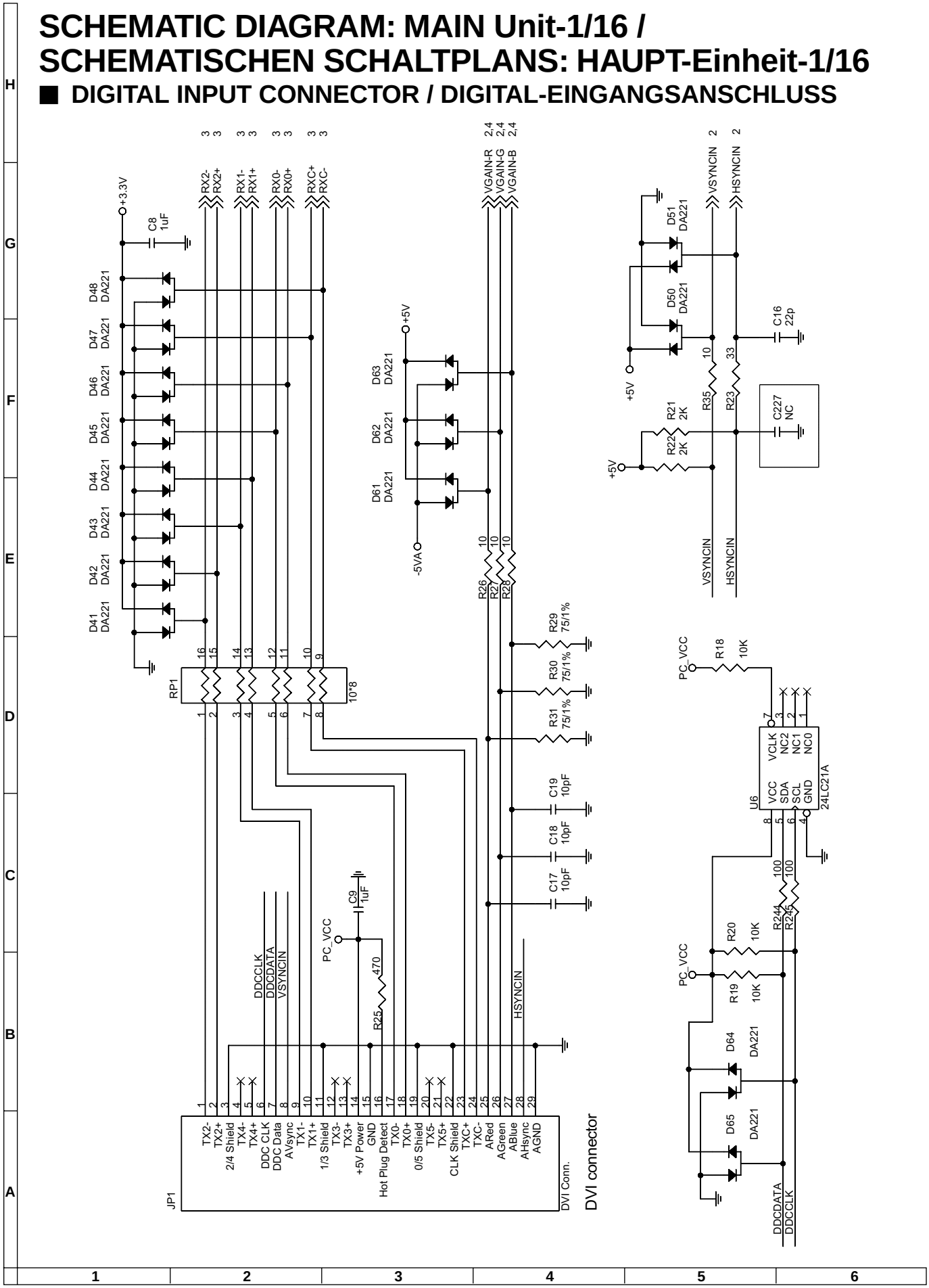
BLOCK DIAGRAM-2 / BLOCKSCHALTBILD-2 (PG-M15S)

■ FORMATTER Unit / FORMATIERER-Einheit



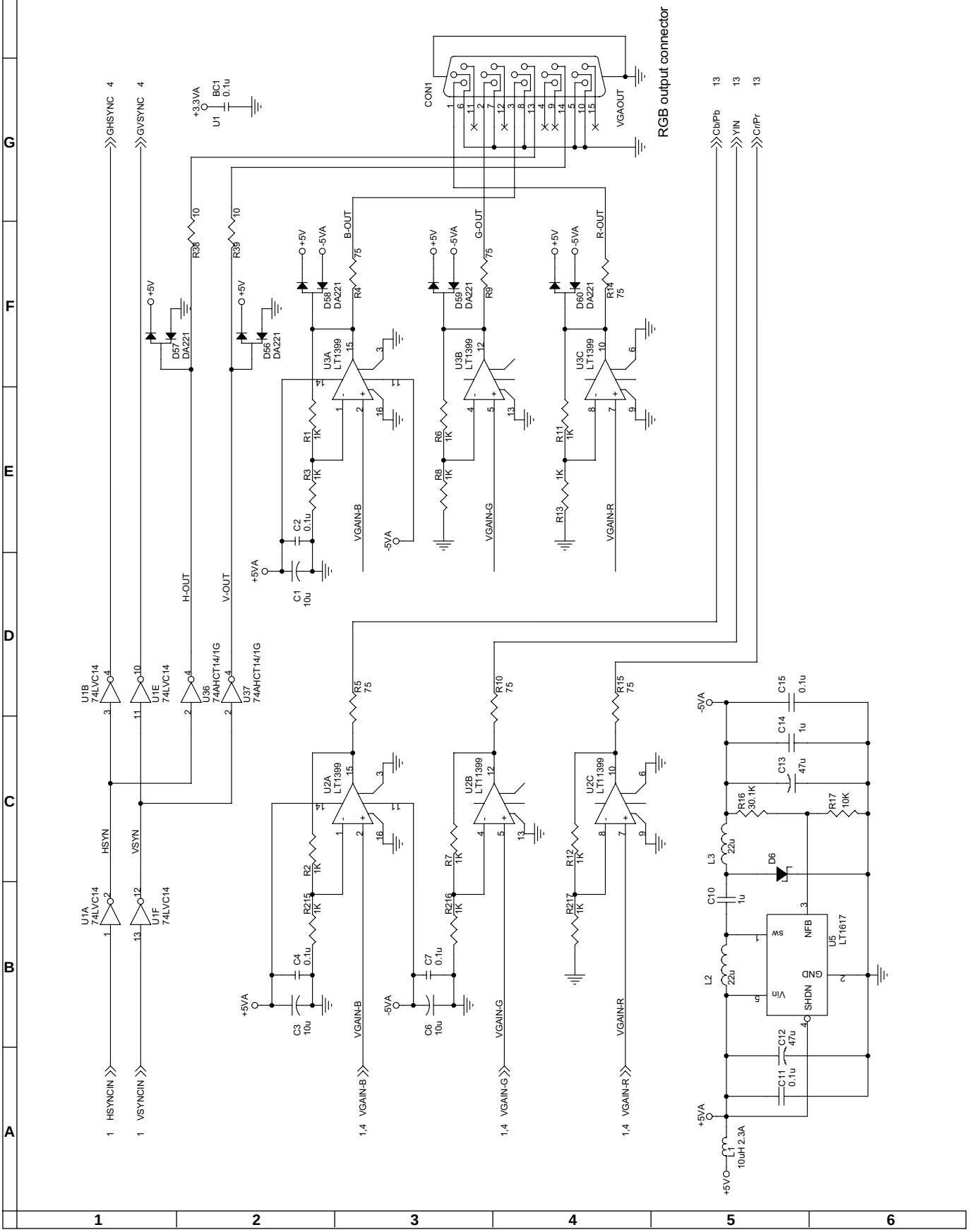
SCHEMATIC DIAGRAM: MAIN Unit-1/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-1/16

■ DIGITAL INPUT CONNECTOR / DIGITAL-EINGANGSANSCHLUSS



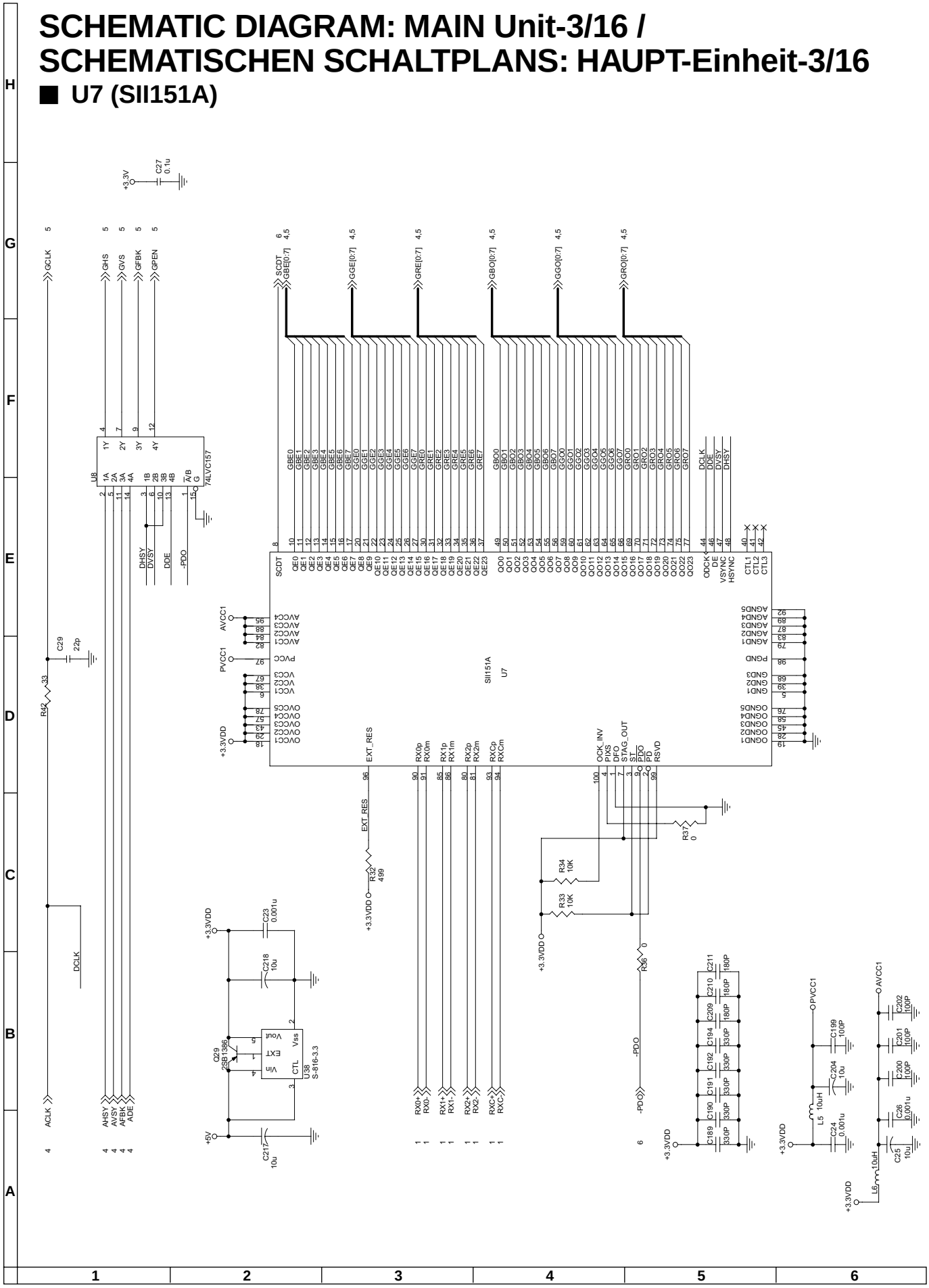
SCHEMATIC DIAGRAM: MAIN Unit-2/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-2/16

■ VGA OUTPUT CONNECTOR / VGA-AUSGANGSANSCHLUSS



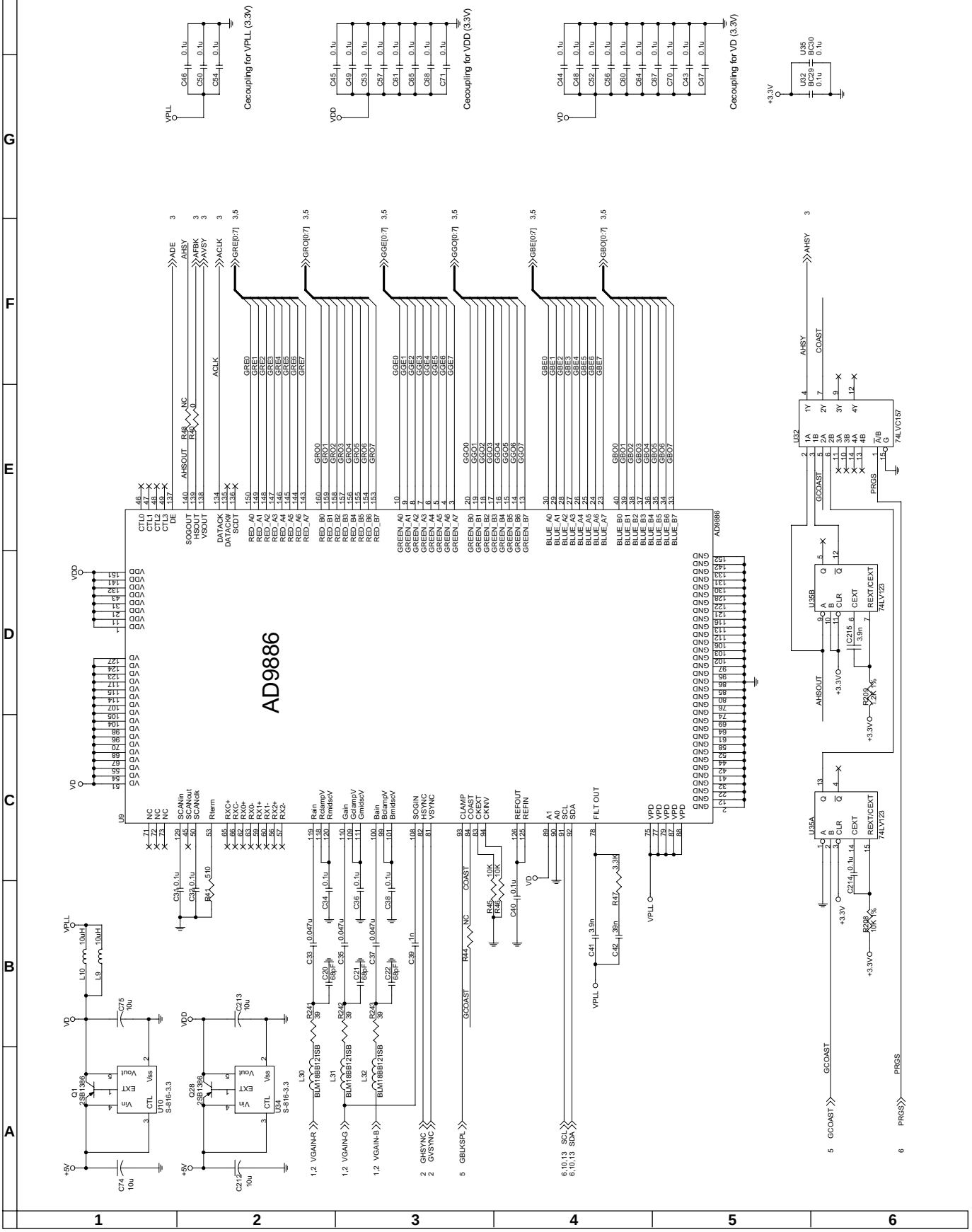
SCHEMATIC DIAGRAM: MAIN Unit-3/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-3/16

■ U7 (SII151A)



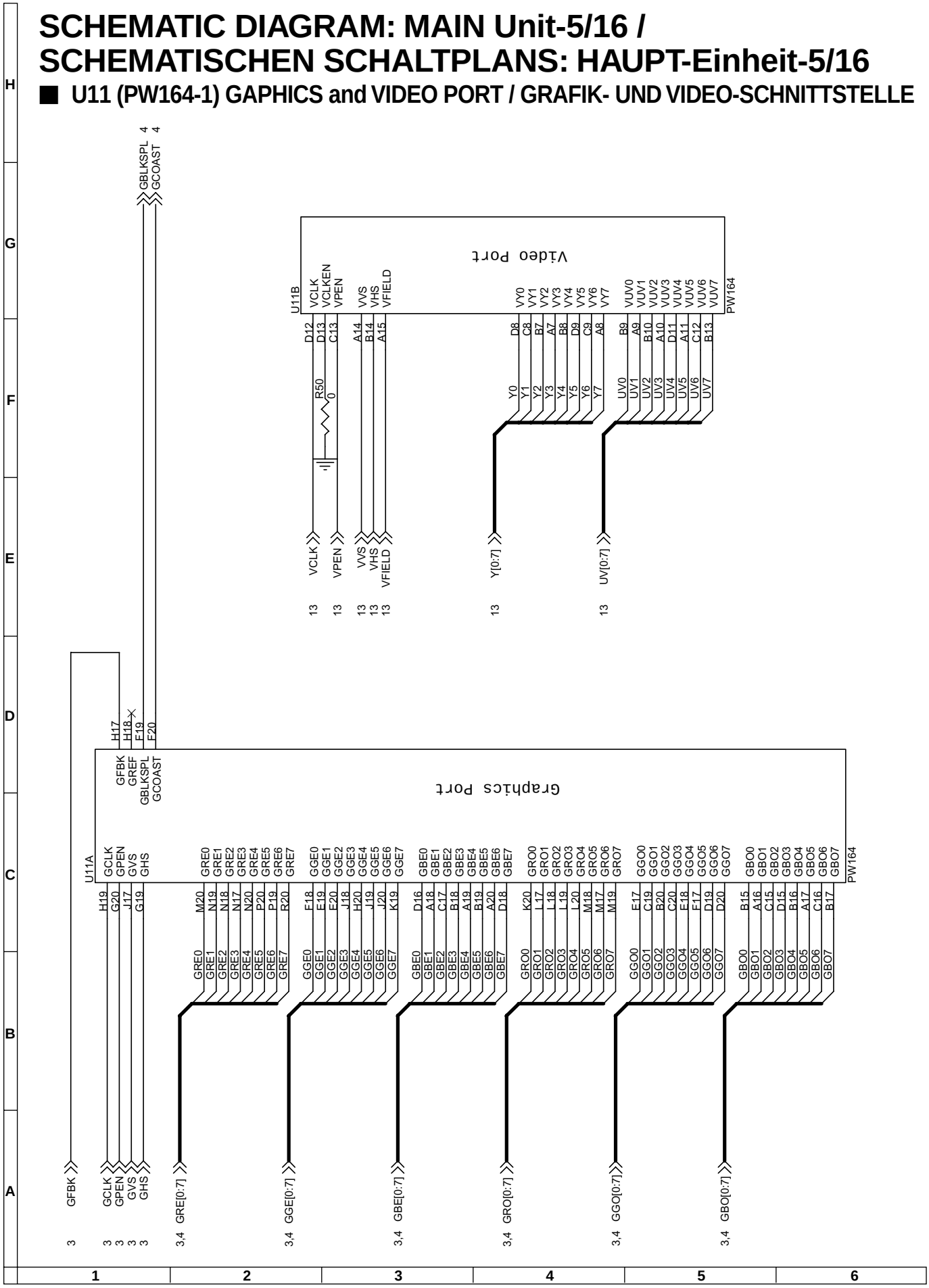
SCHEMATIC DIAGRAM: MAIN Unit-4/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-4/16

■ U9 (AD9886)



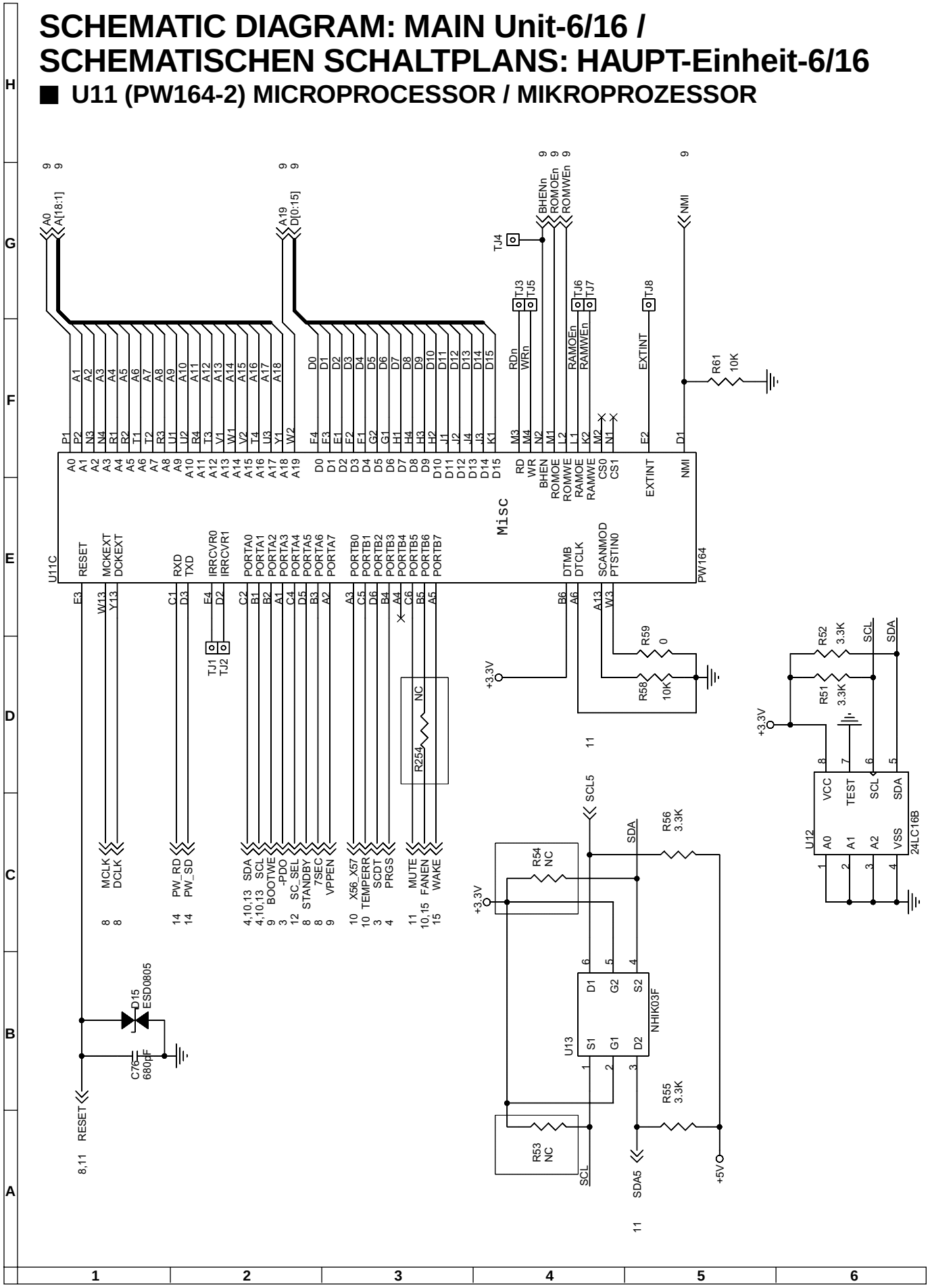
SCHEMATIC DIAGRAM: MAIN Unit-5/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-5/16

■ U11 (PW164-1) GAPHICS and VIDEO PORT / GRAFIK- UND VIDEO-SCHNITTSTELLE



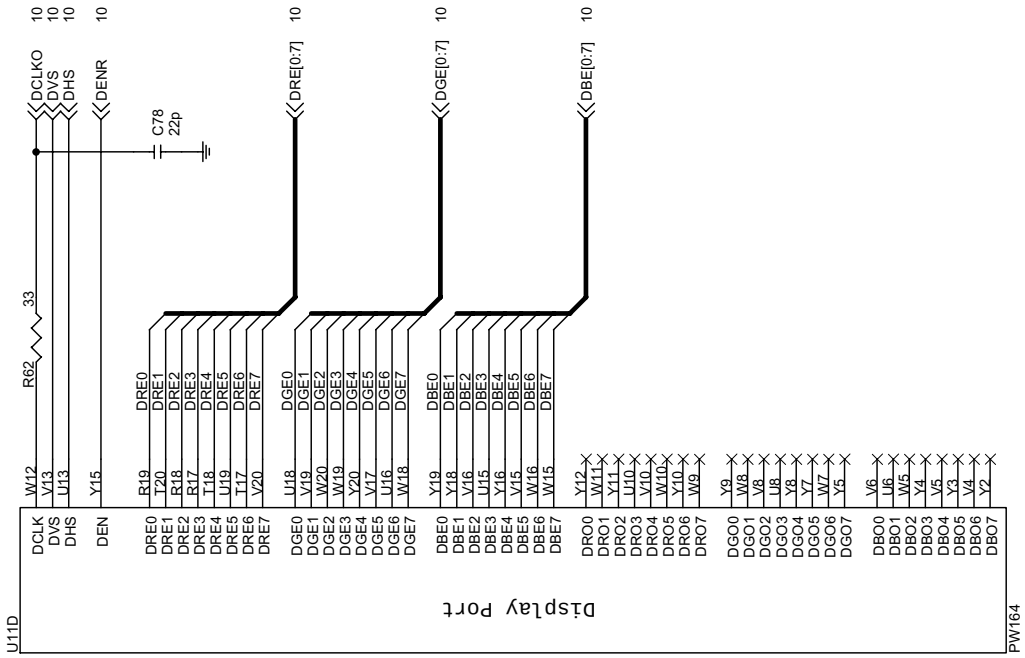
SCHEMATIC DIAGRAM: MAIN Unit-6/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-6/16

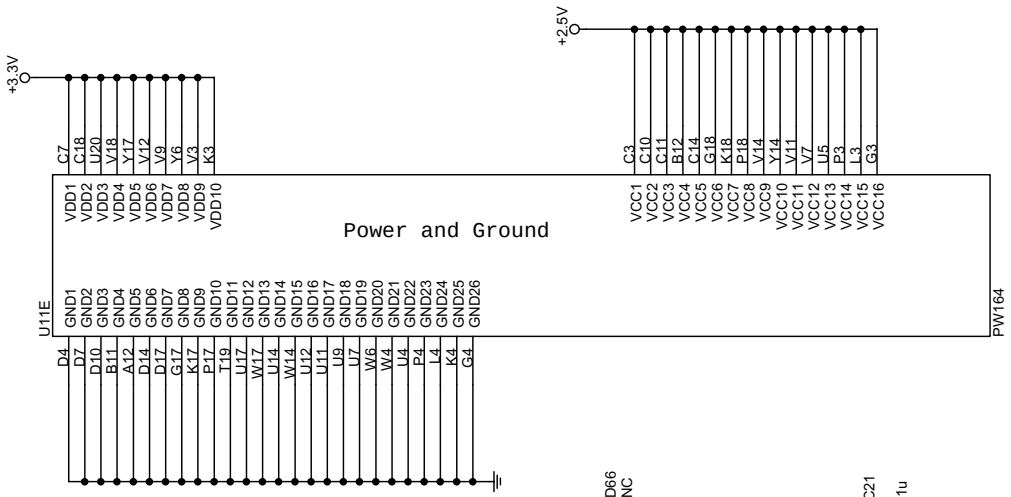
■ U11 (PW164-2) MICROPROCESSOR / MIKROPROZESSOR

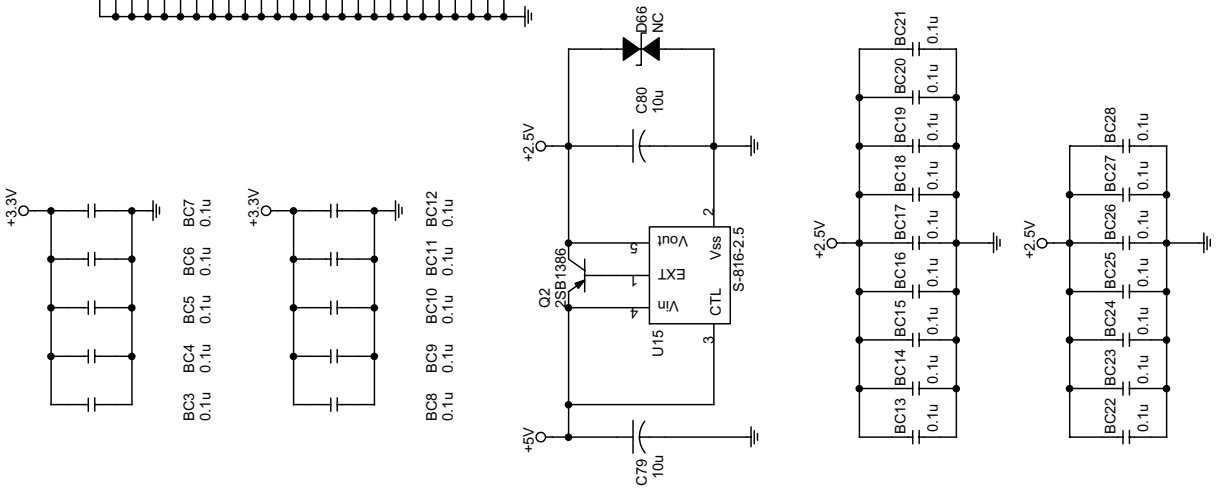


SCHEMATIC DIAGRAM: MAIN Unit-7/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-7/16

■ U11 (PW164-3) DISPLAY PORT / DISPLAY-SCHNITTSTELLE

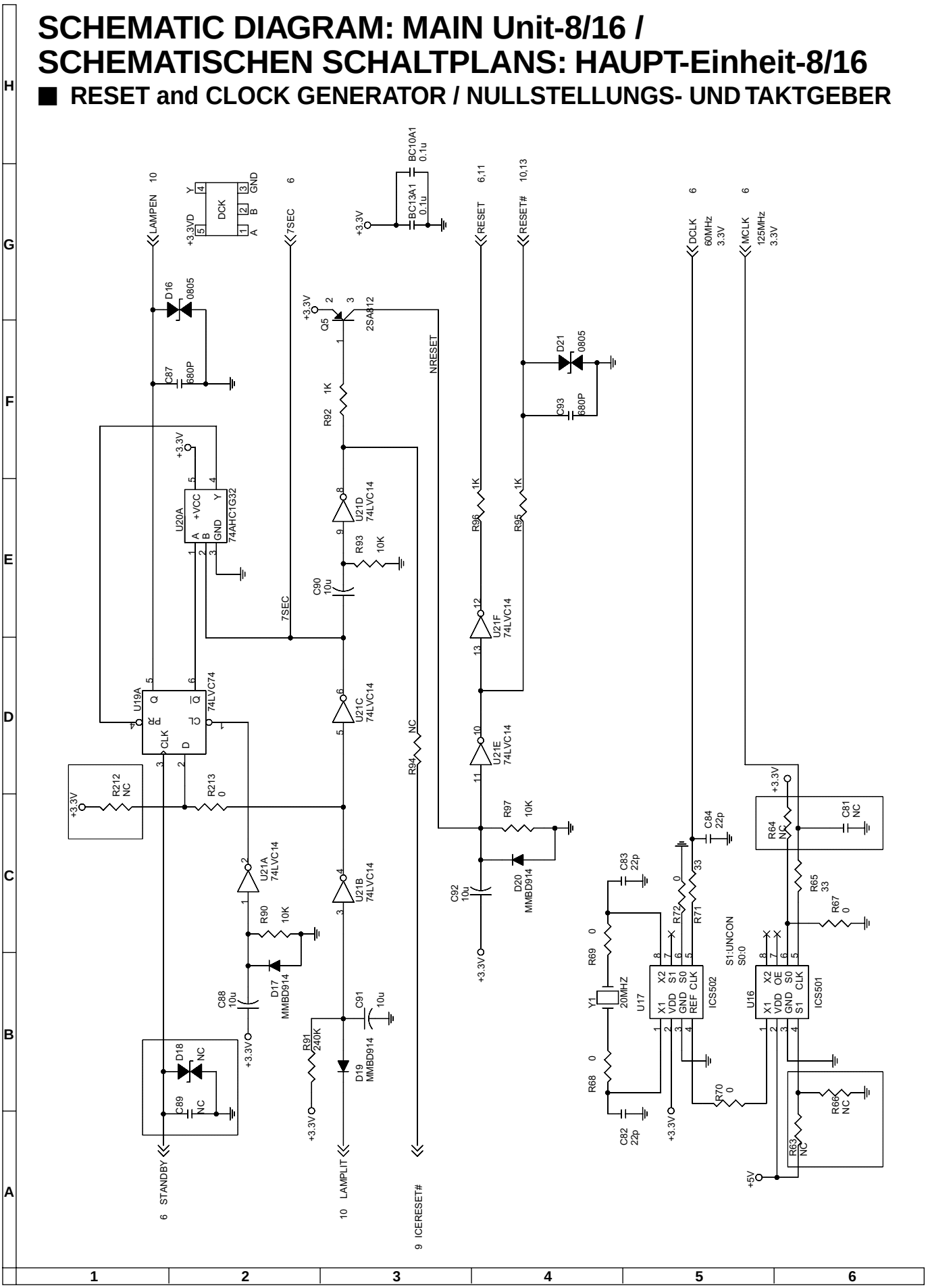






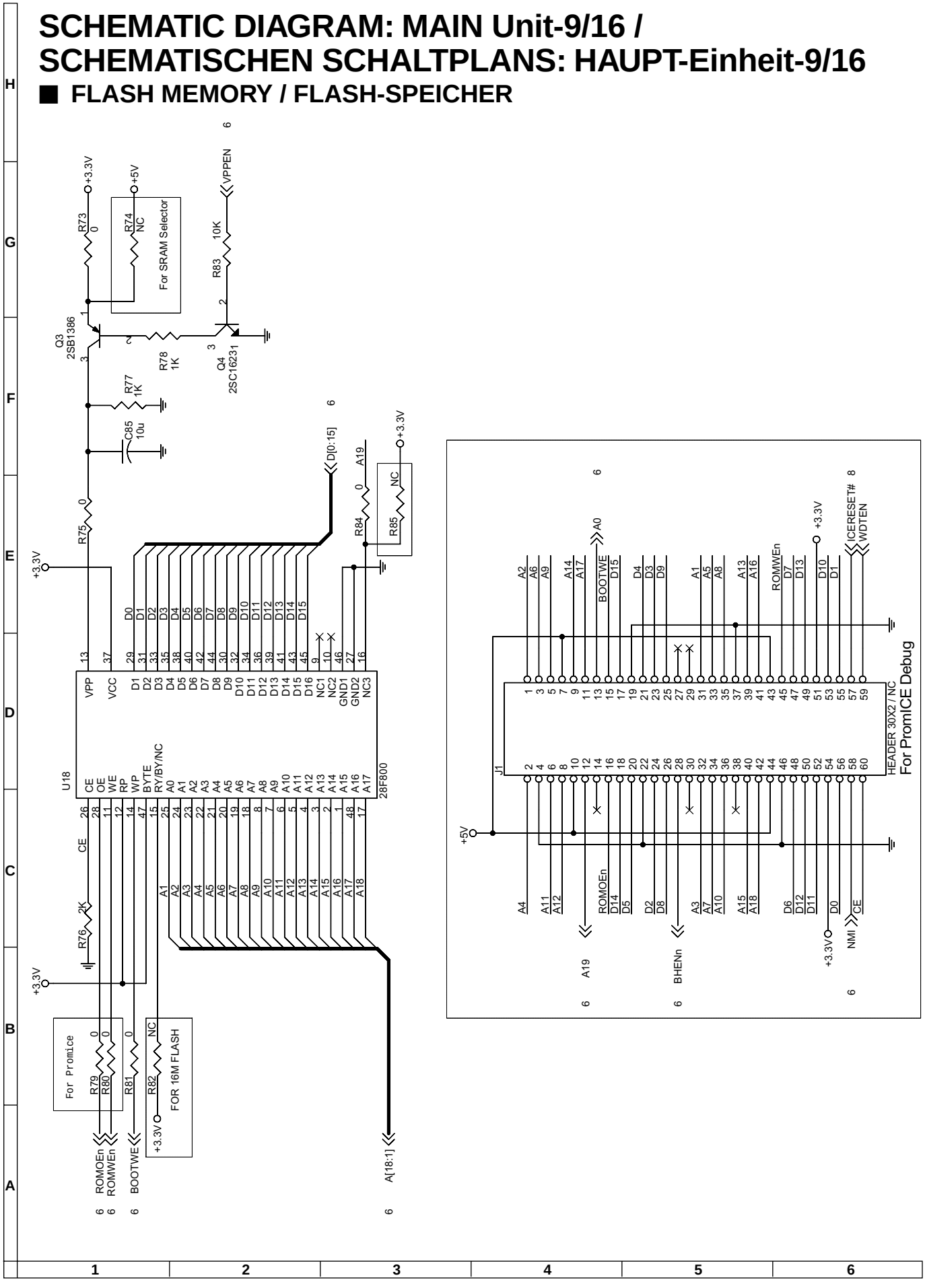
SCHEMATIC DIAGRAM: MAIN Unit-8/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-8/16

■ RESET and CLOCK GENERATOR / NULLSTELLUNGS- UND TAKTGEBER



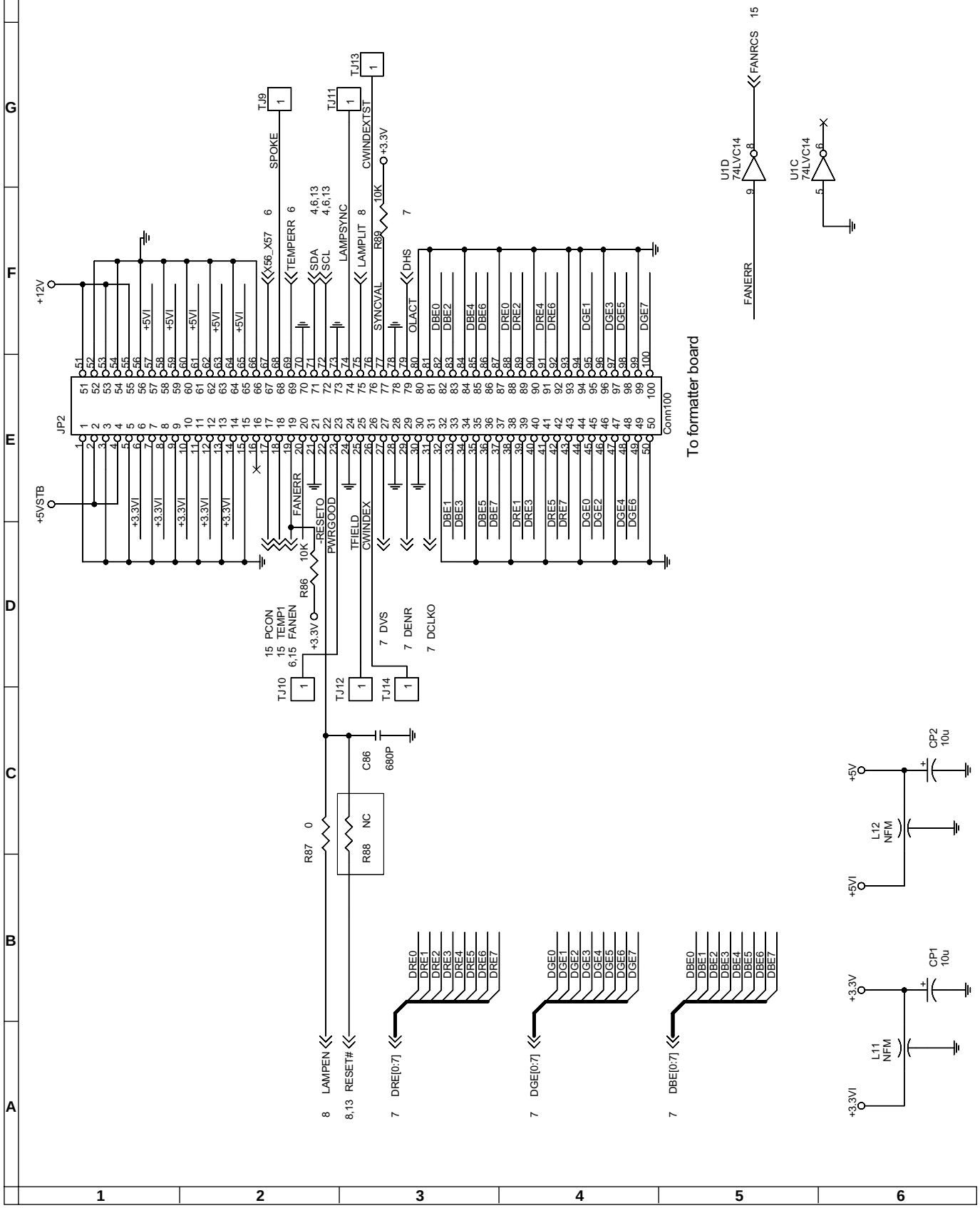
SCHEMATIC DIAGRAM: MAIN Unit-9/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-9/16

■ FLASH MEMORY / FLASH-SPEICHER



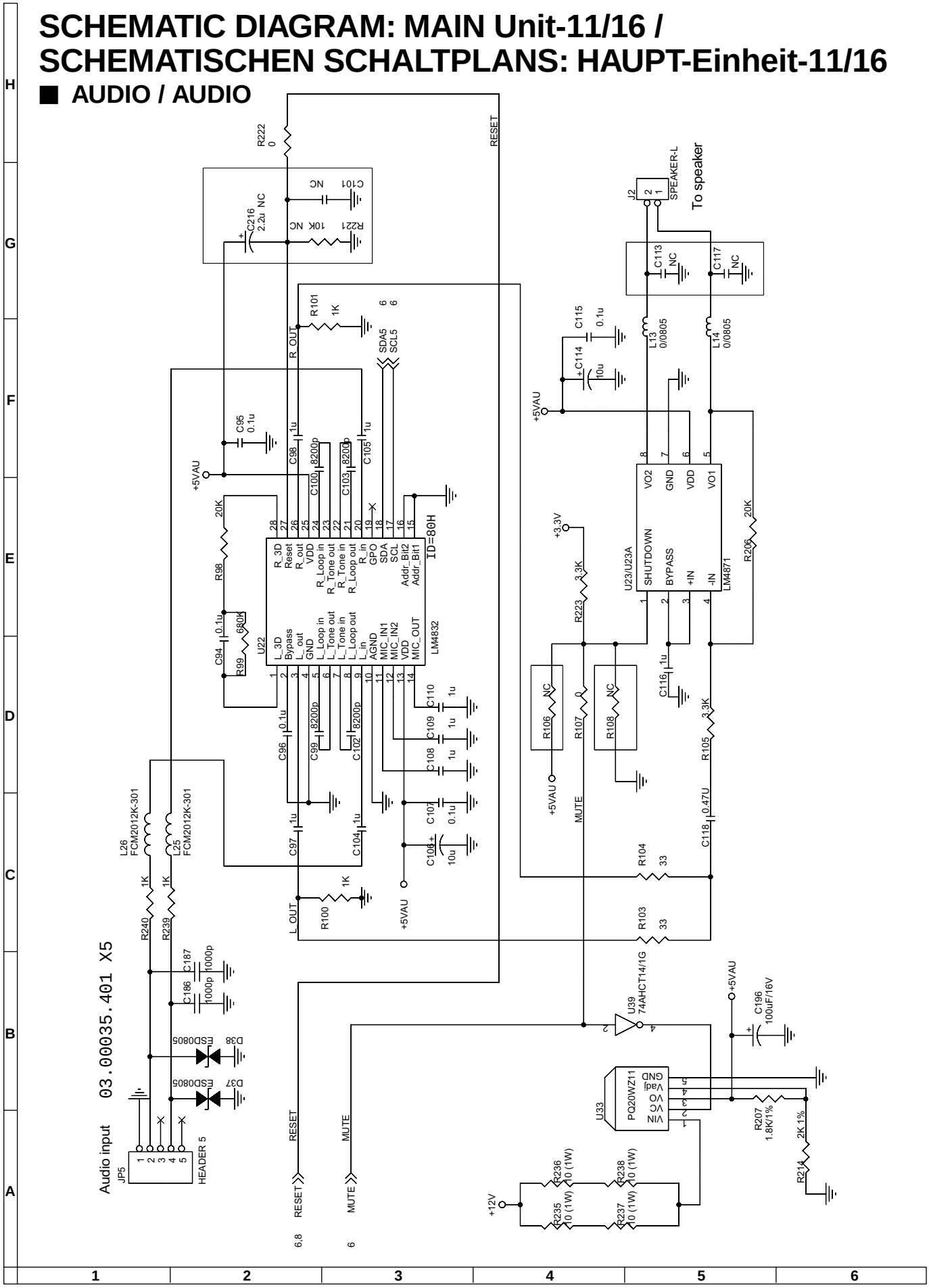
SCHEMATIC DIAGRAM: MAIN Unit-10/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-10/16

■ 100 PIN INTERFACE / SCHNITTSTELLE (100POLIG)



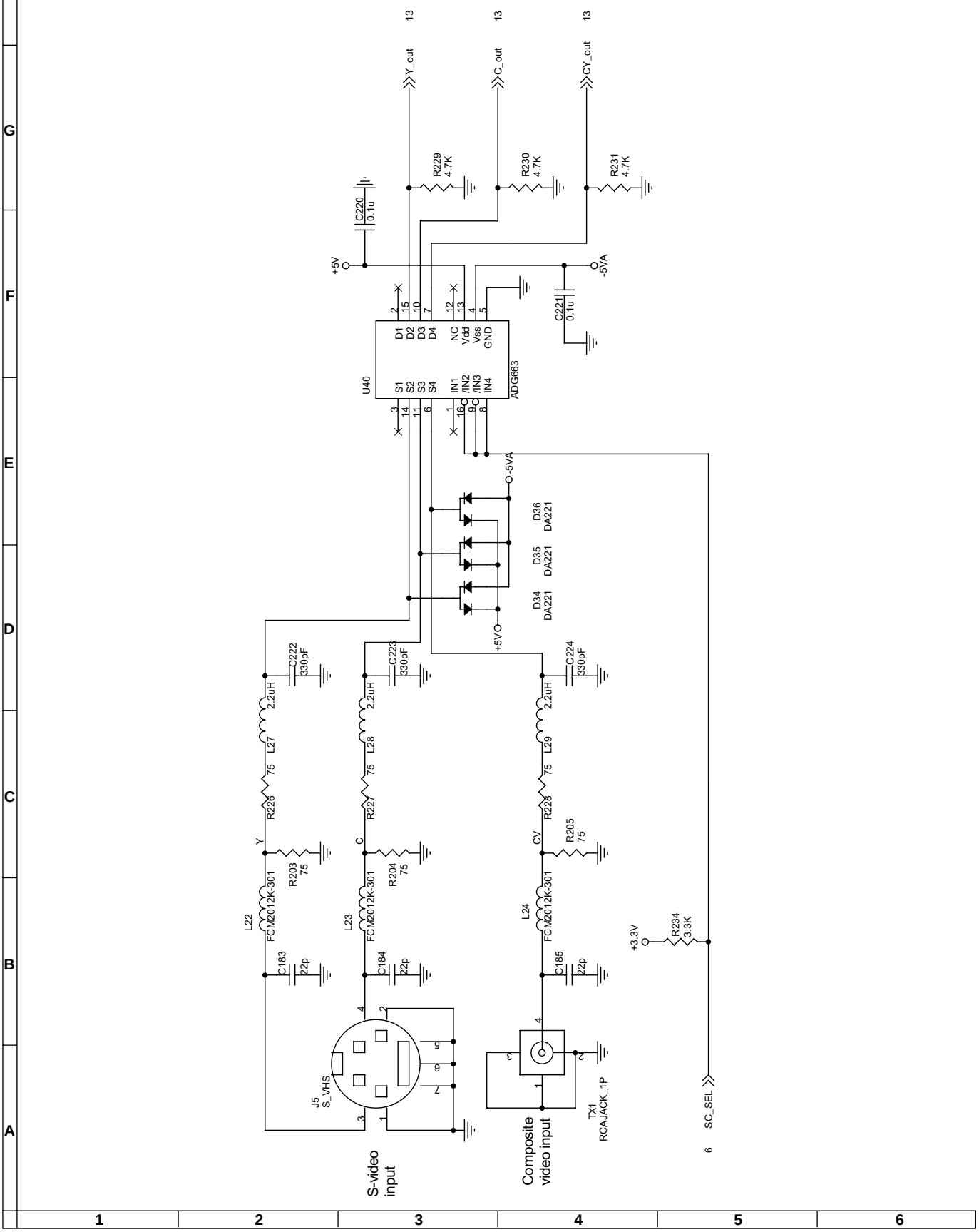
SCHEMATIC DIAGRAM: MAIN Unit-11/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-11/16

■ AUDIO / AUDIO



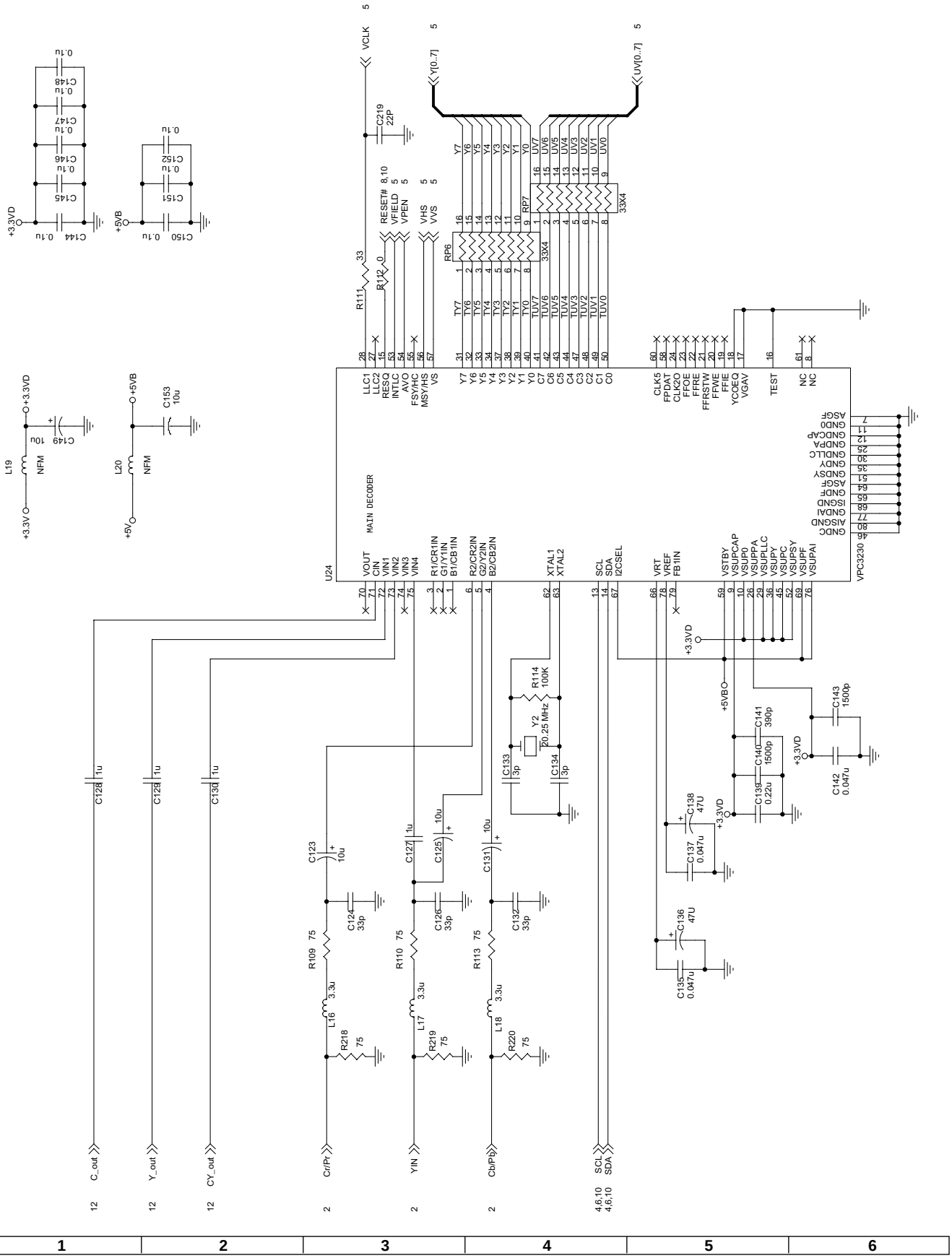
SCHEMATIC DIAGRAM: MAIN Unit-12/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-12/16

■ VIDEO INPUT / VIDEO EINGANG



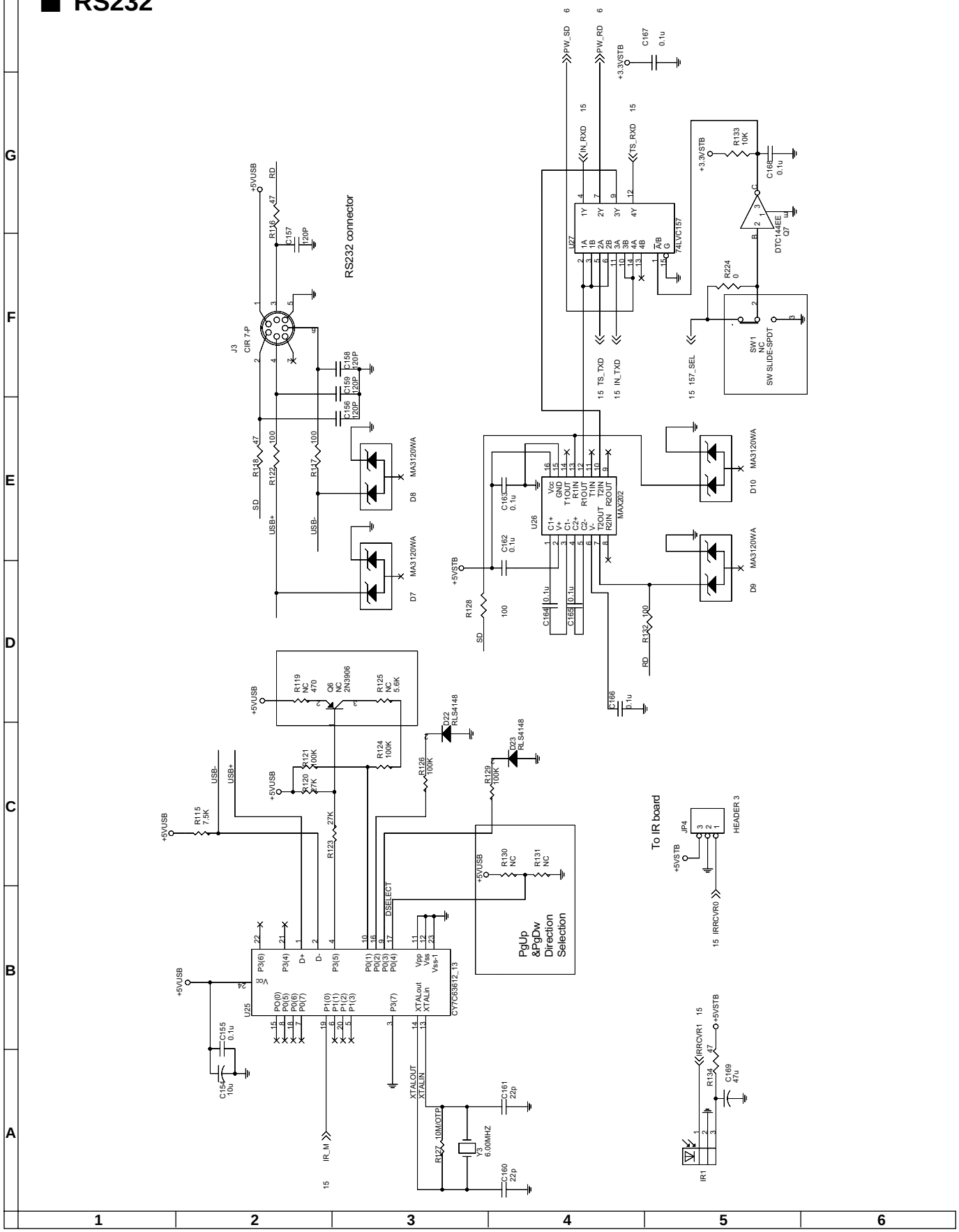
SCHEMATIC DIAGRAM: MAIN Unit-13/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-13/16

■ VIDEO DECODER / BILDDECODIERER



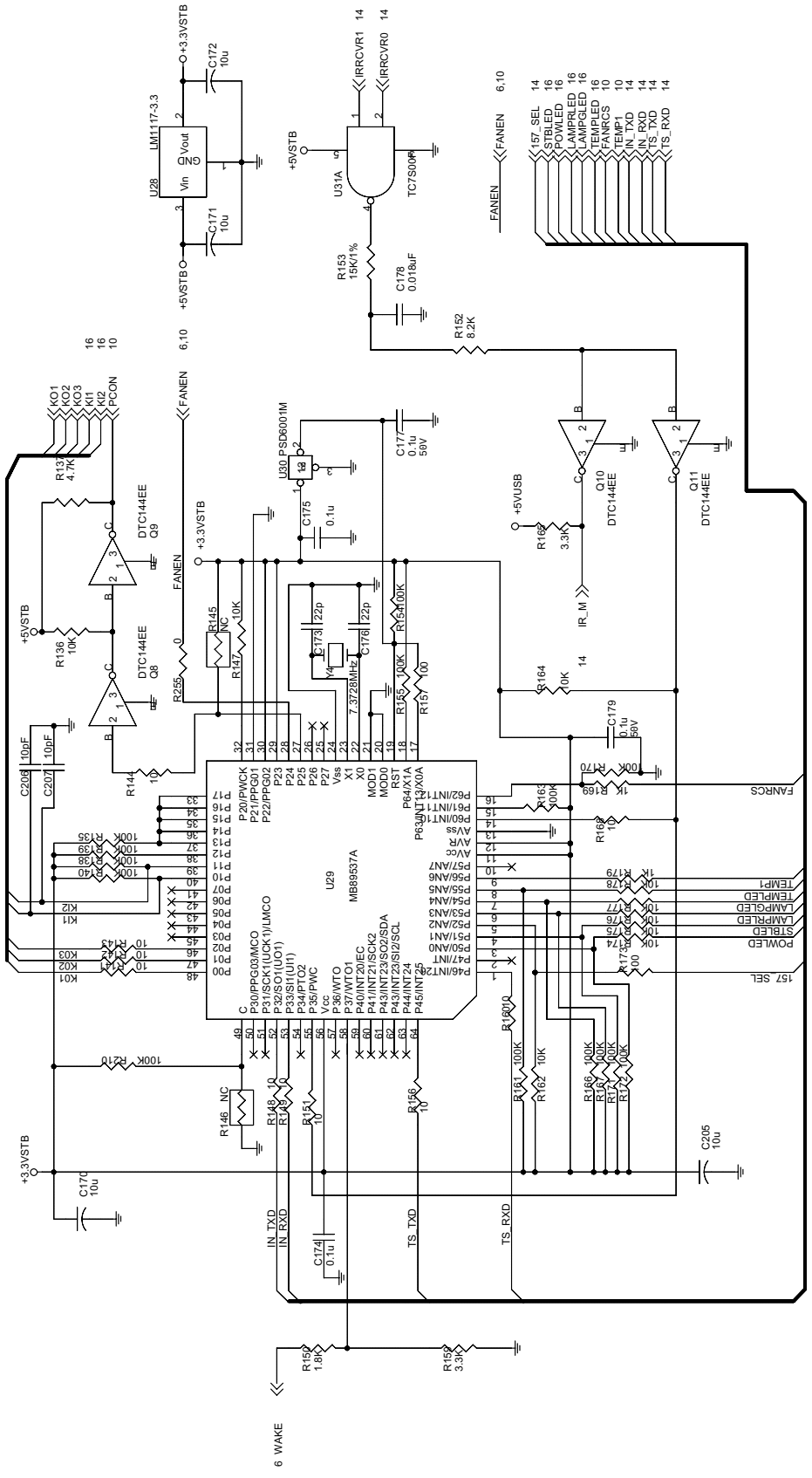
SCHEMATIC DIAGRAM: MAIN Unit-14/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-14/16

■ RS232



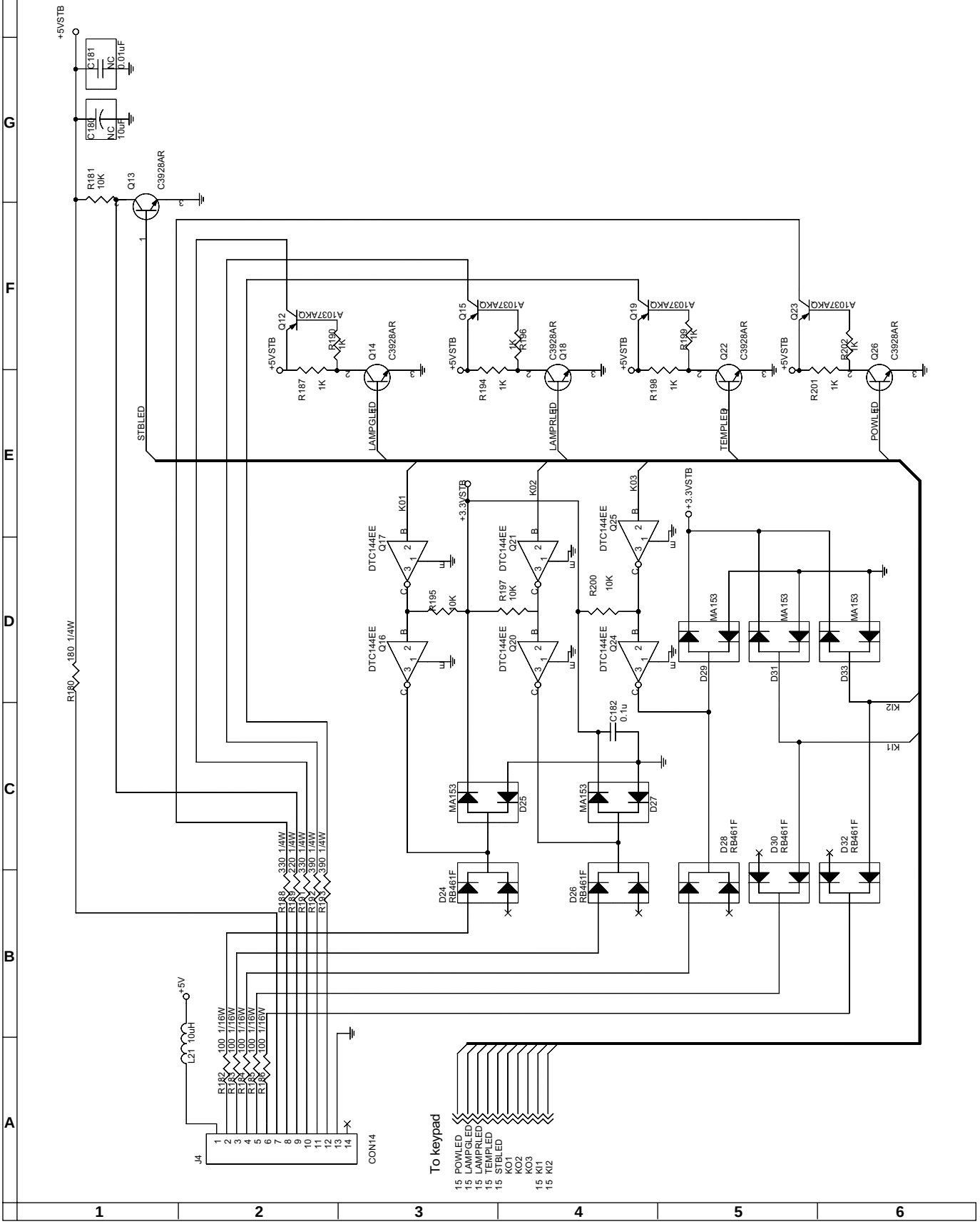
SCHEMATIC DIAGRAM: MAIN Unit-15/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-15/16

■ SUB-MICRON / SUB-MIKRON



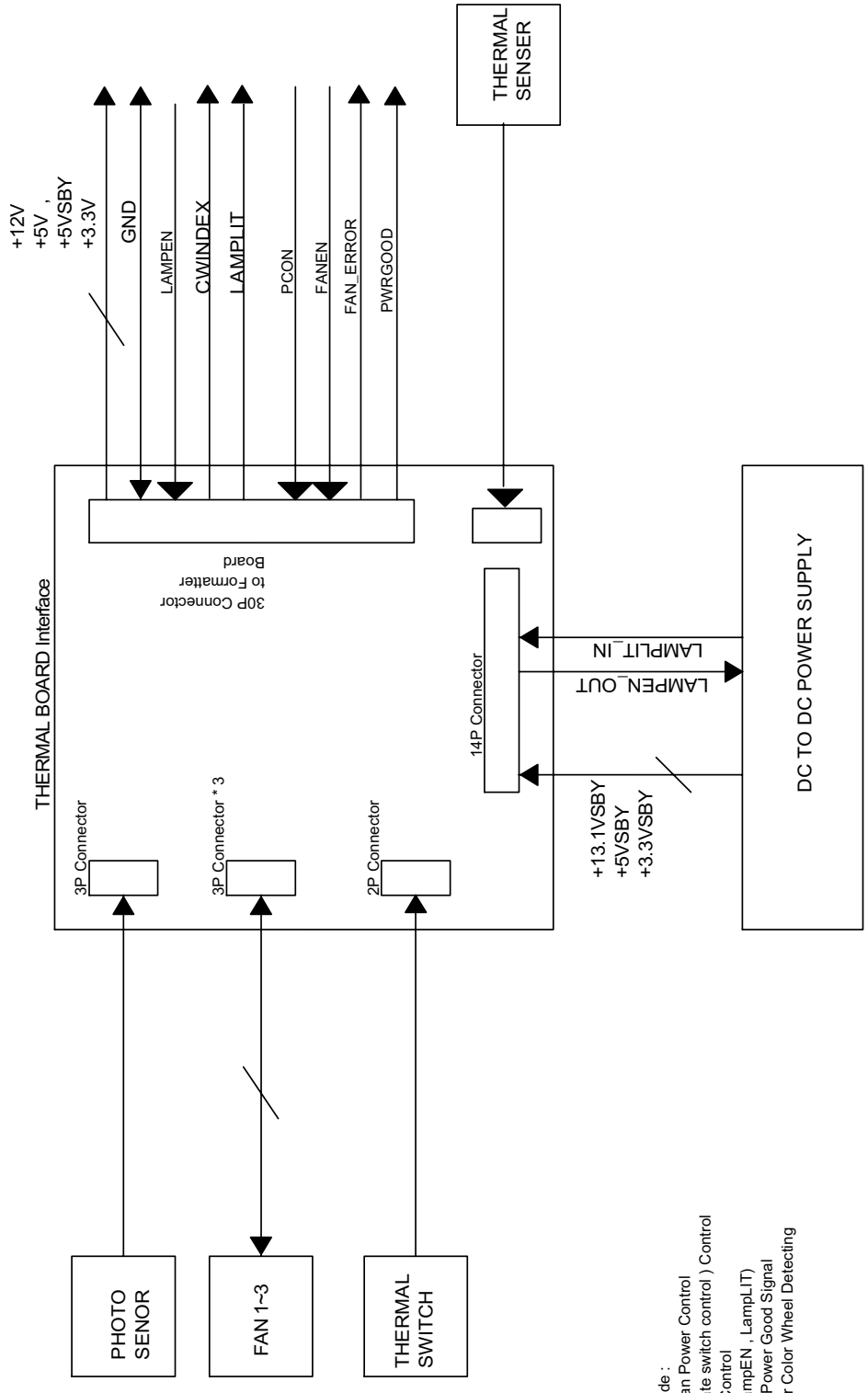
SCHEMATIC DIAGRAM: MAIN Unit-16/16 / SCHEMATISCHEN SCHALTPLANS: HAUPT-Einheit-16/16

■ KEYPAD CONTROL / TASTATURSTEUERUNG



SCHEMATIC DIAGRAM: THERMAL Unit-1/7 / SCHEMATISCHEN SCHALTPLANS: THERMO-Einheit-1/7

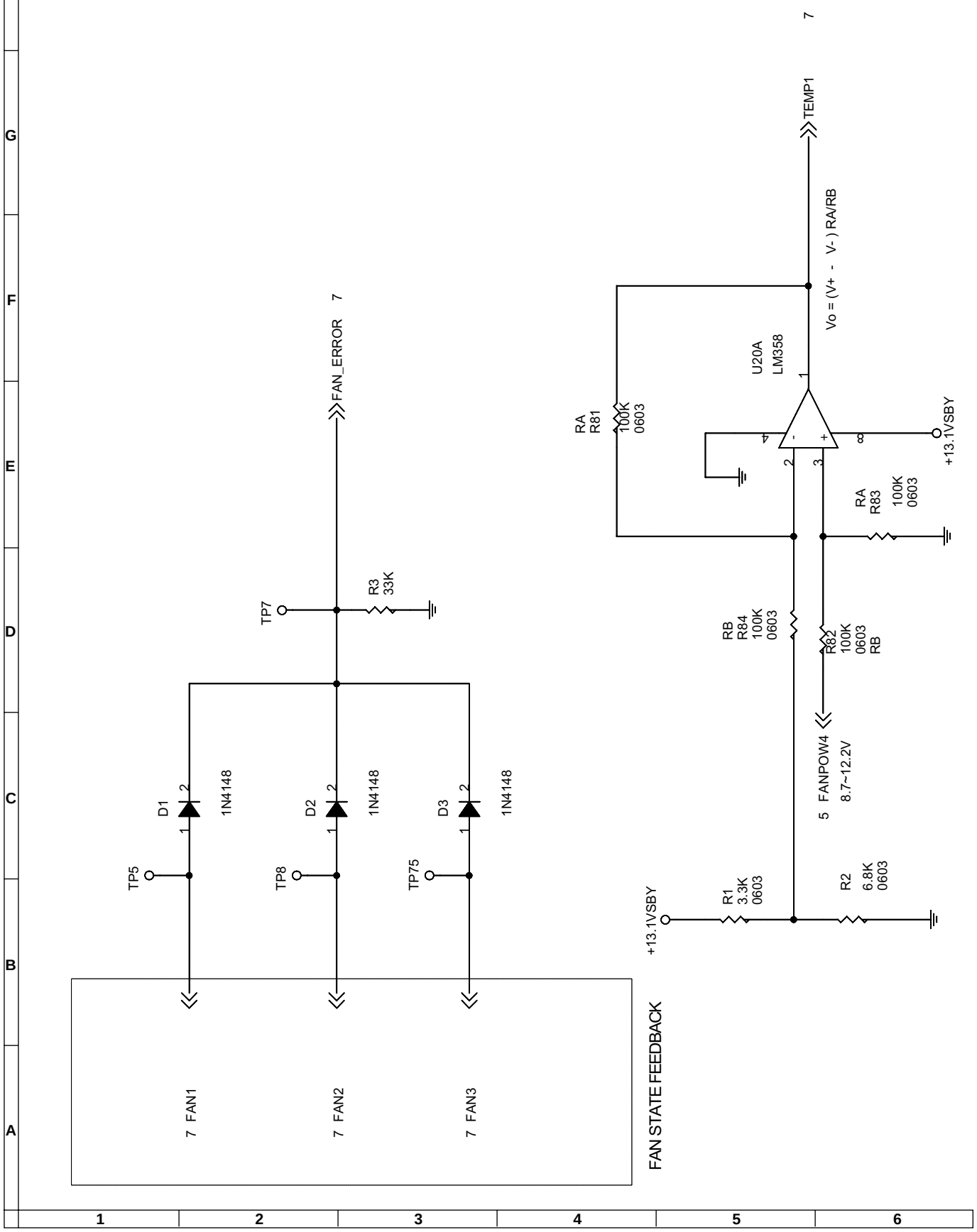
■ CONNECTOR INTERFACE / STECKERSCHNITTSTELLE



Thermal Board Include :
1. Main Power & Fan Power Control
2. Fan Speed(2 state switch control) Control
3. Thermal Effect Control
4. Lamp Control (LampEN , LampLIT)
5. Formatter Board Power Good Signal
8. Photo Sensor for Color Wheel Detecting Input Signal

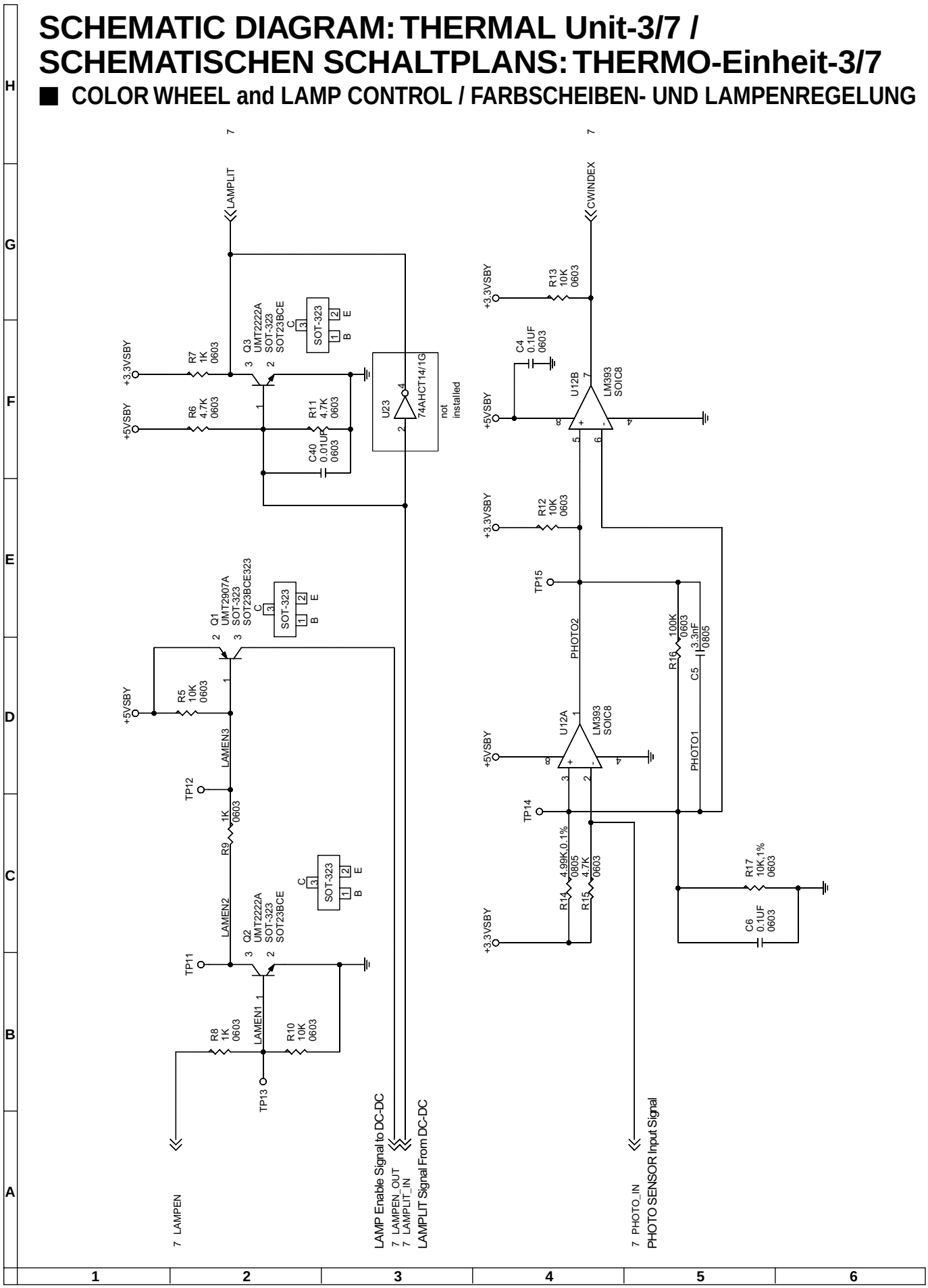
SCHEMATIC DIAGRAM: THERMAL Unit-2/7 /
SCHEMATISCHEN SCHALTPLANS: THERMO-Einheit-2/7

■ FAN FEEDBACK DETECT / GEBLÄSE-RÜCKFÜHRUNGSERKENNUNG



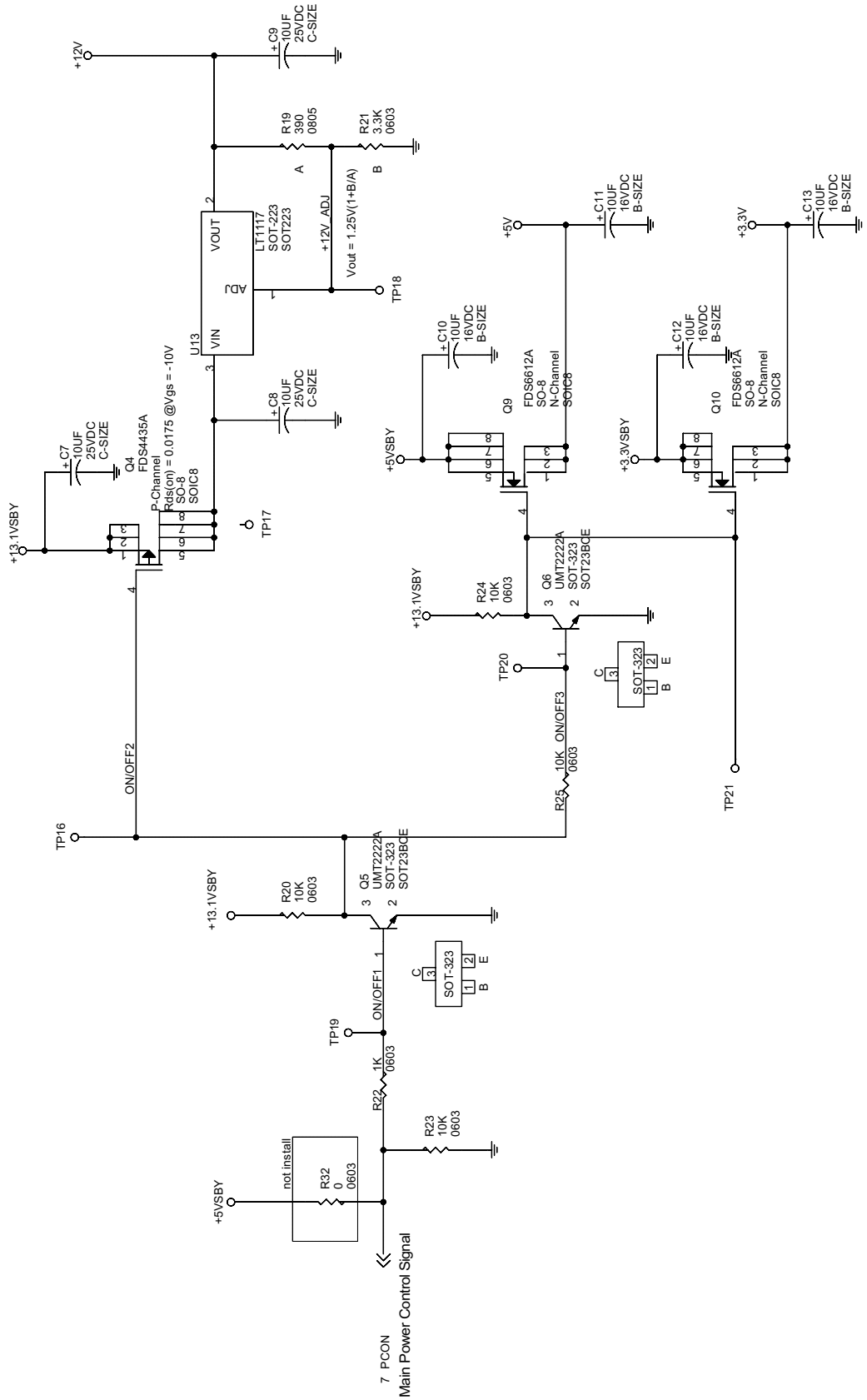
SCHEMATIC DIAGRAM: THERMAL Unit-3/7 / SCHEMATISCHEN SCHALTPLANS: THERMO-Einheit-3/7

■ COLOR WHEEL and LAMP CONTROL / FARBSCHEIBEN- UND LAMPENREGELUNG



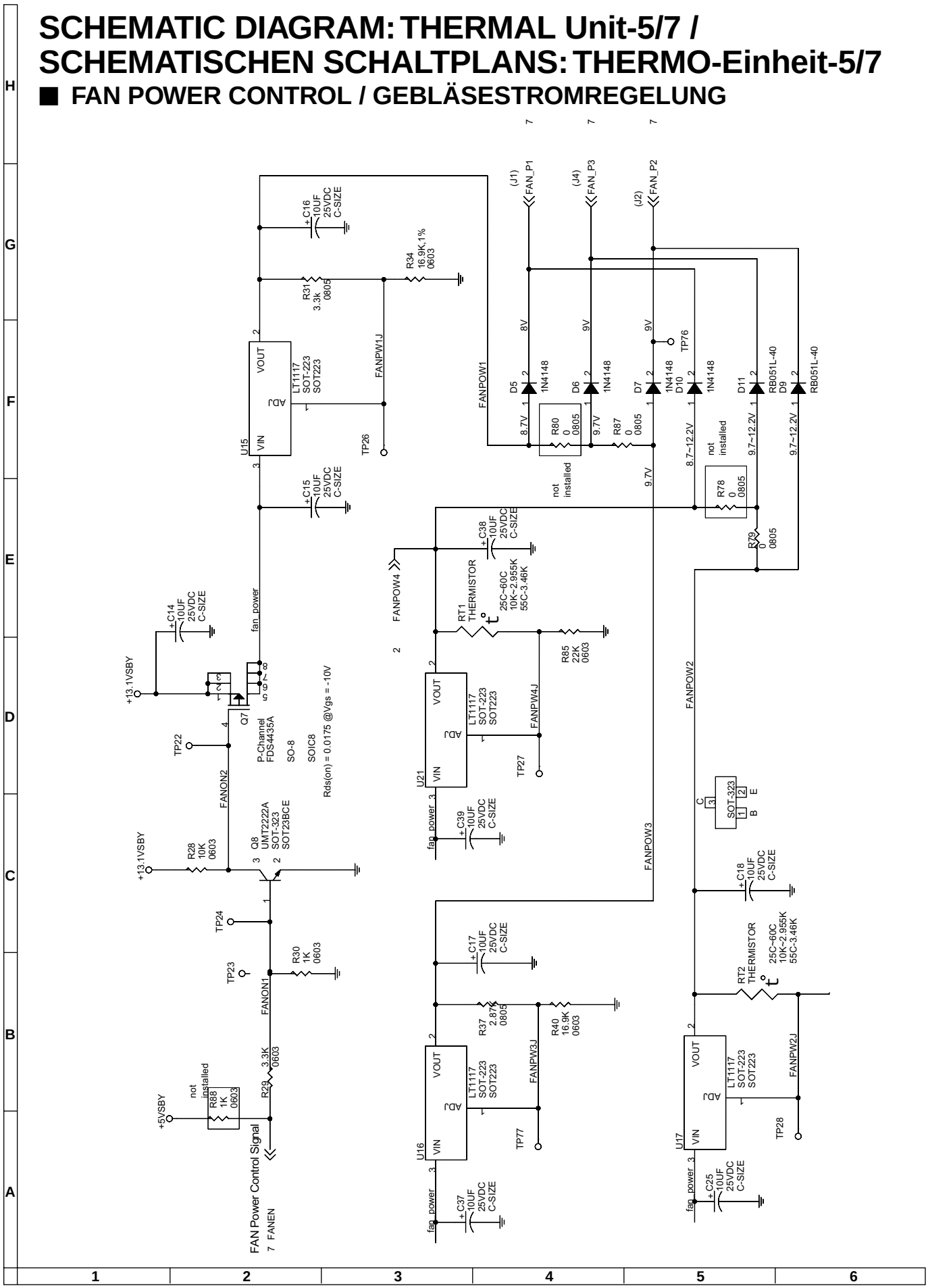
SCHEMATIC DIAGRAM: THERMAL Unit-4/7 /
SCHEMATISCHEN SCHALTPLANS: THERMO-Einheit-4/7

■ SYSTEM MAIN POWER CONTROL / SYSTEM-HAUPTSTROMSTEUERUNG



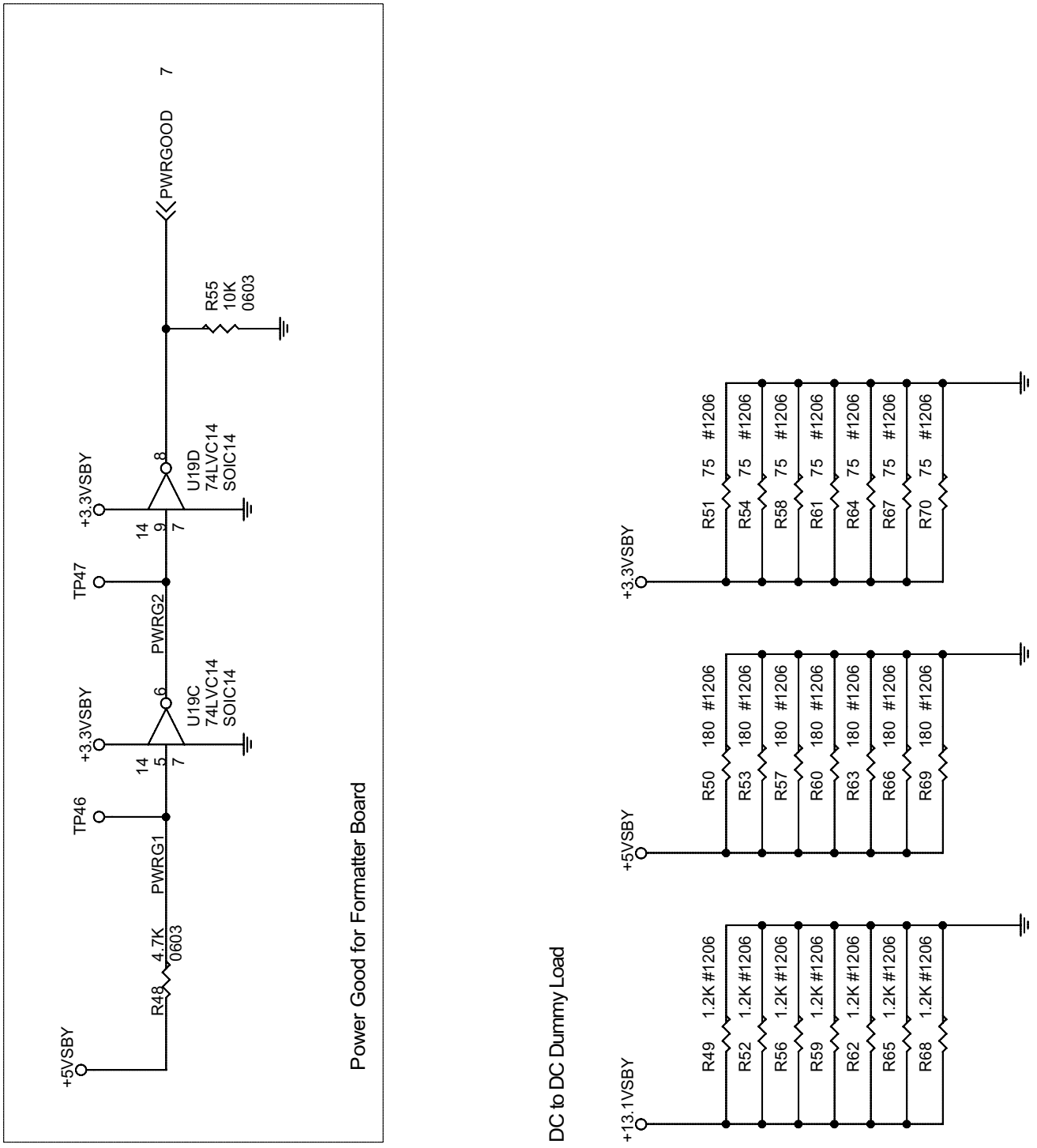
SCHEMATIC DIAGRAM: THERMAL Unit-5/7 /
SCHEMATISCHEN SCHALTPLANS: THERMO-Einheit-5/7

■ FAN POWER CONTROL / GEBLÄSESTROMREGELUNG



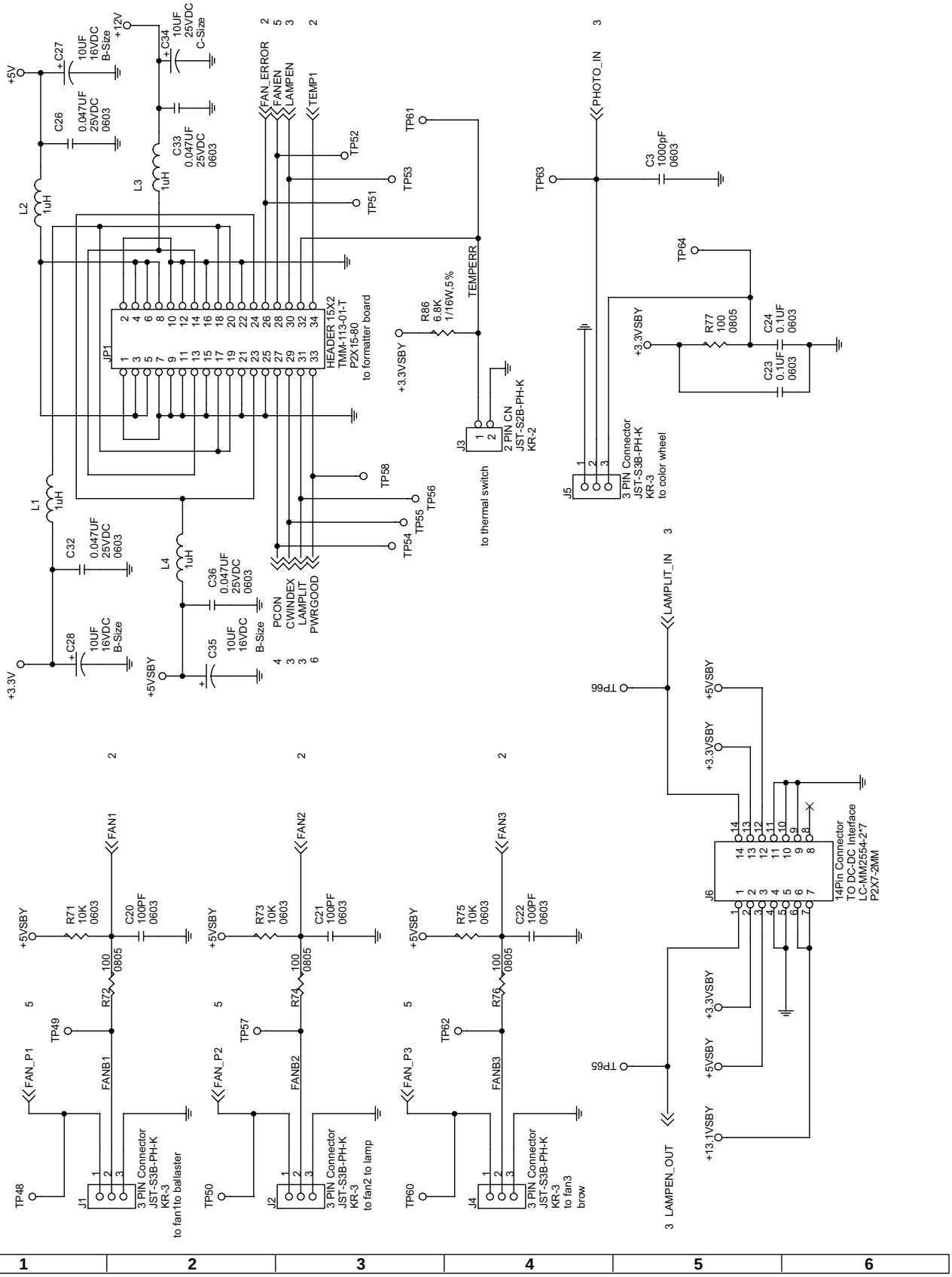
SCHEMATIC DIAGRAM: THERMAL Unit-6/7 /
SCHEMATISCHEN SCHALTPLANS: THERMO-Einheit-6/7

■ POWER GOOD FOR FORMATTER UNI /
STROMKREISLAUF FÜR FORMATIEREREINHEIT

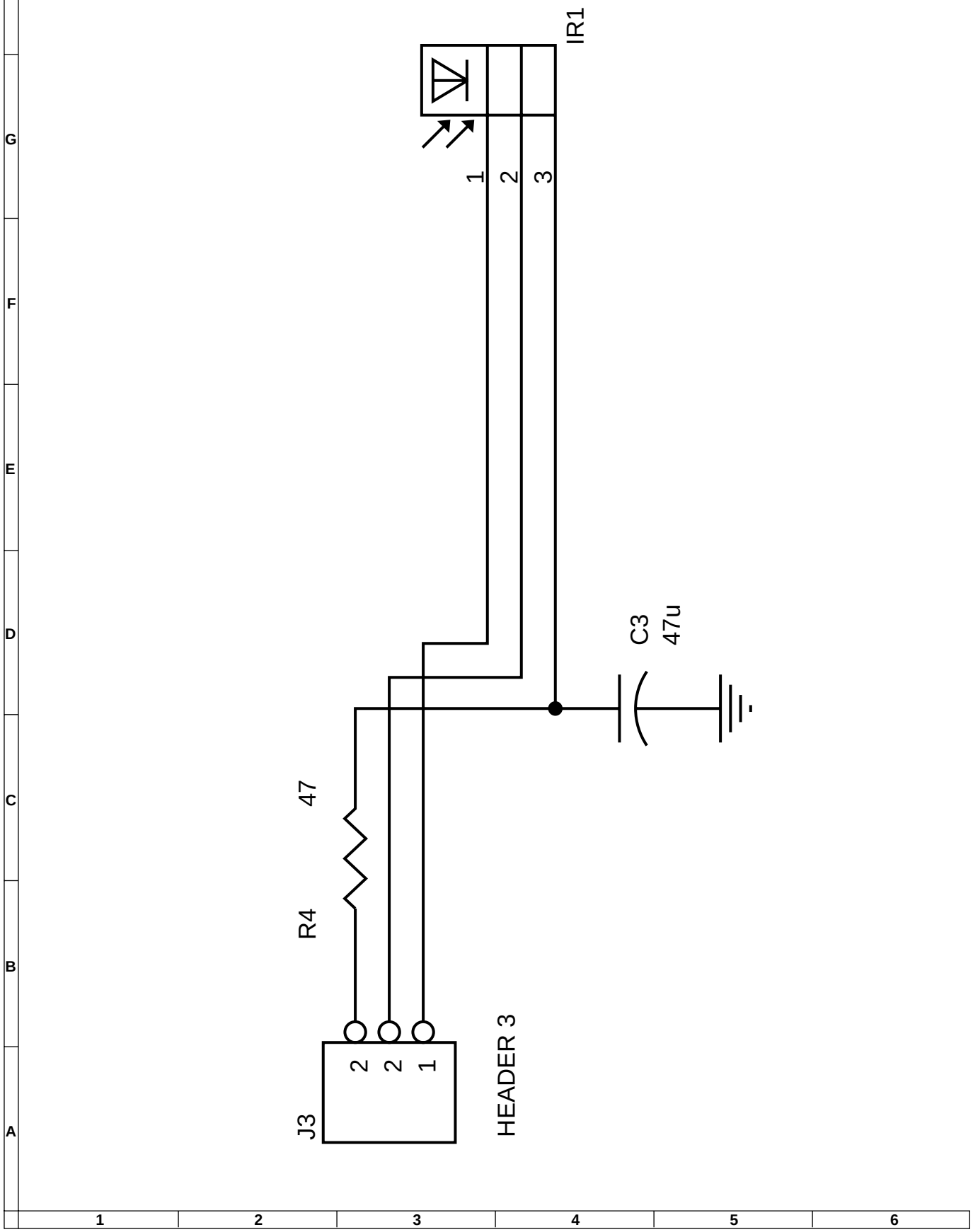


SCHEMATIC DIAGRAM: THERMAL Unit-7/7 / SCHEMATISCHEN SCHALTPLANS: THERMO-Einheit-7/7

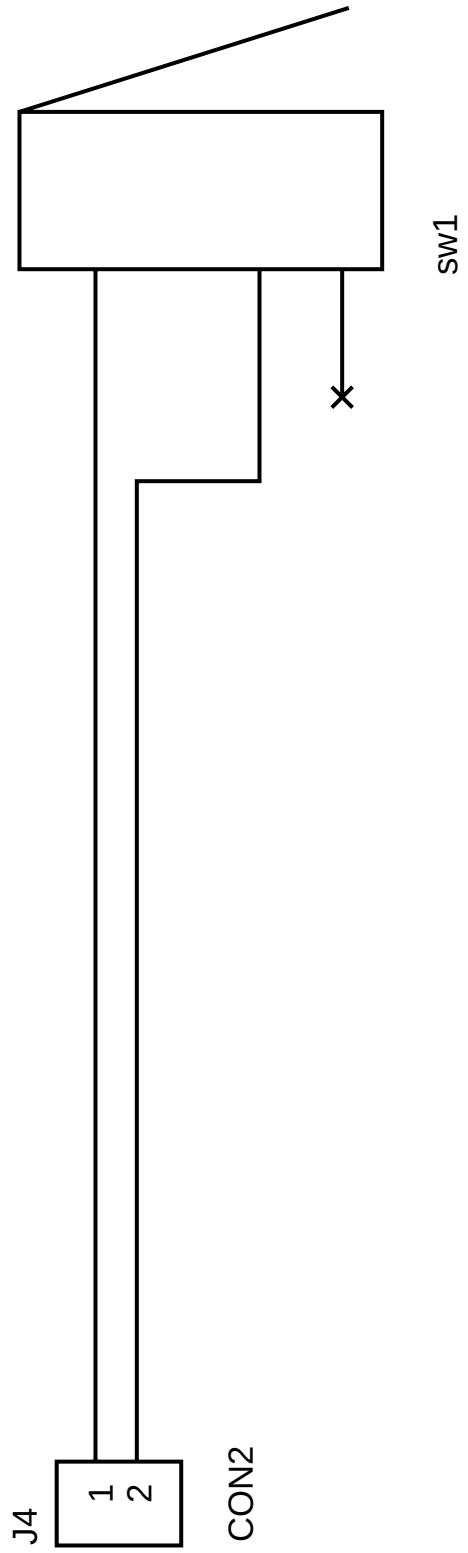
■ THERMAL BOARD CONNECTOR INTERFACE / THERMOPLATINEN-ANSCHLUSSSCHNITTSTELLE



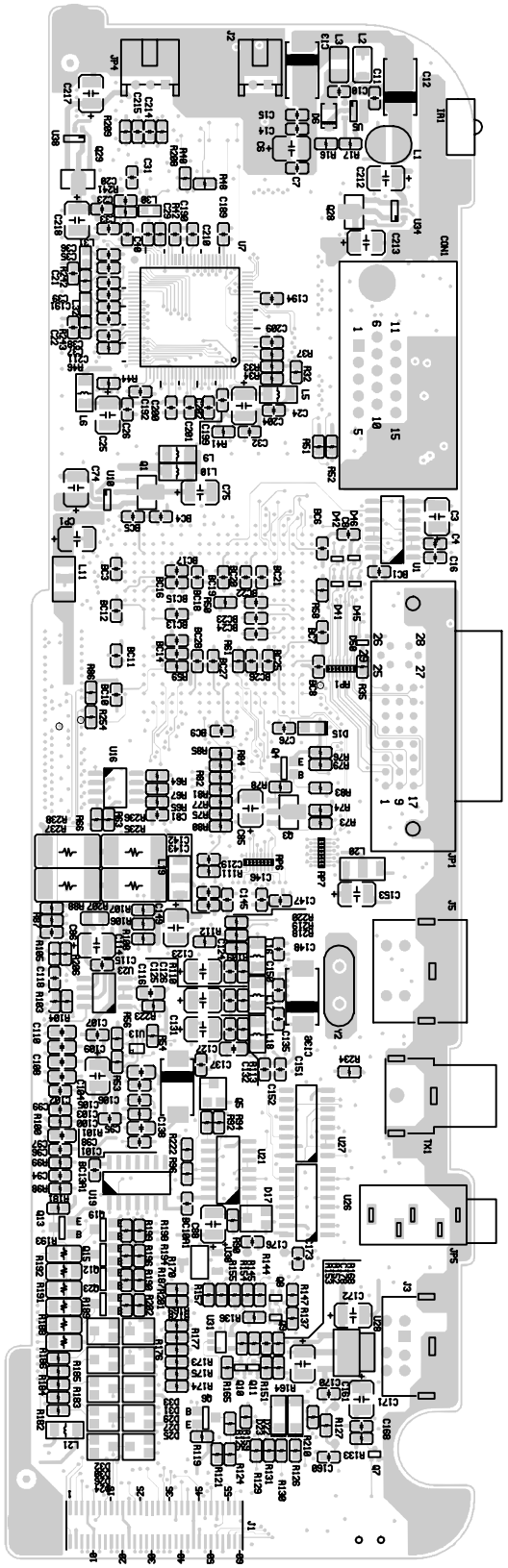
SCHEMATIC DIAGRAM: IR Unit /
SCHEMATISCHEN SCHALTPLANS: IR-Einheit



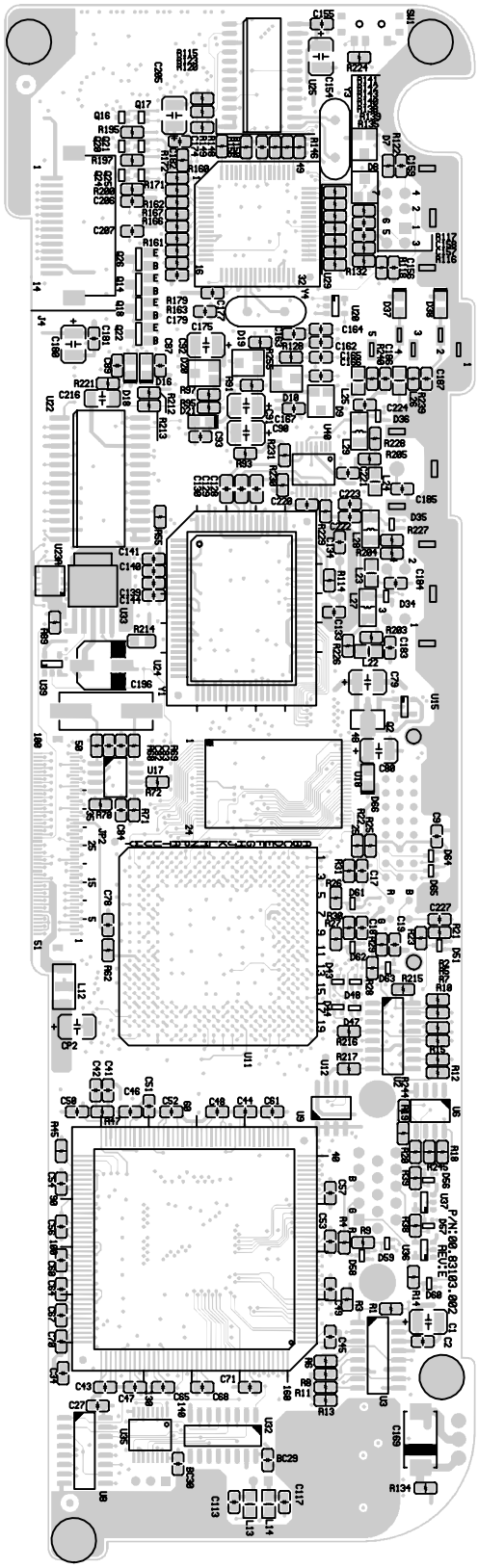
SCHEMATIC DIAGRAM: SW Unit /
SCHEMATISCHEN SCHALTPLANS: SCHALTER-Einheit



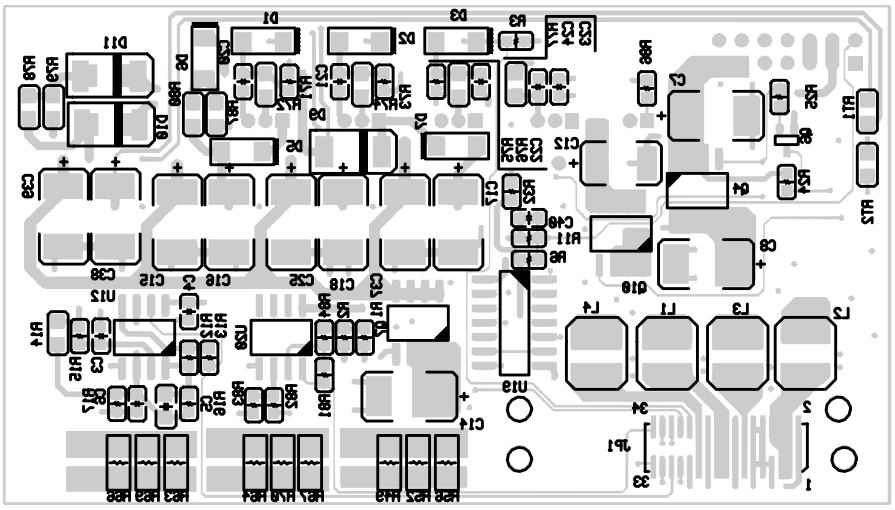
PRINTED WIRING BOARD ASSEMBLIES / LEITERPLATTENINHEITIN



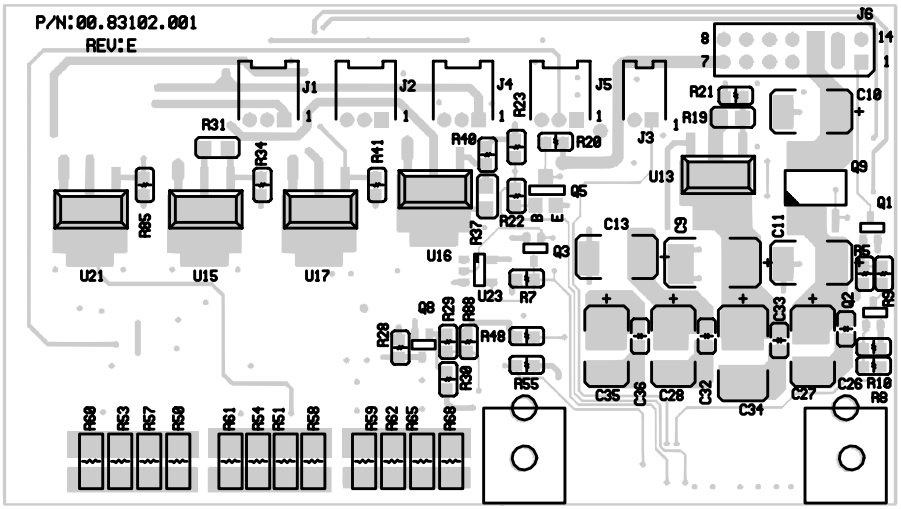
Main Unit (Wiring Side) / Haupteinheit (Leiterbahnseite)



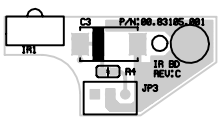
Main Unit (Component Side) / Haupteinheit (Bestückungsseite)



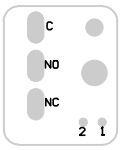
Thermal Unit (Wiring Side)/
Thermoeinheit (Leiterbahnseite)



Thermal Unit (Component Side)/
Thermoeinheit (Bestückungsseite)



IR Unit (Component Side)/
IR-Einheit (Bestückungsseite)



SW Unit (Component Side)/
Schaltereinheit (Bestückungsseite)

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Specifications

Product type	Digital Multimedia Projector
Model	PG-M15X/PG-M15S
Video system	NTSC/NTSC 4.43/PAL/PAL-M/PAL-N/PAL 60/SECAM/DTV480i
Display method	Single Chip Digital Micromirror Device™ (DMD™) by Texas Instruments
DMD panel	Panel size: 0.7″ (17.8 mm), 1 chip XGA DMD/SVGA DMD No. of dots: 786,432 dots (1,024 [H] × 768 [V])/PG-M15X 480,000 dots (800 [H] × 600 [V])/PG-M15S
Lens	1-1.2 X zoom lens, F2.2–2.4, f = 28.5–34.2 mm
Projection lamp	High Intensity Discharge Lamp (HID Lamp), AC 130 W
Contrast ratio	500:1
Video input signal	RCA Connector (INPUT 3): VIDEO, composite video, 1.0 Vp-p, sync negative, 75 Ω terminated
S-video input signal	4-pin Mini DIN connector (INPUT 2) Y (luminance signal): 1.0 Vp-p, sync negative, 75 Ω terminated C (chrominance signal): Burst 0.286 Vp-p, 75 Ω terminated
Component input signal	29-pin Connector (INPUT 1) Y: 1.0 Vp-p, sync negative, 75 Ω terminated P_B: 0.7 Vp-p, 75 Ω terminated P_R: 0.7 Vp-p, 75 Ω terminated
Horizontal resolution	580 TV lines (video input)
Computer RGB input signal	29-pin CONNECTOR (INPUT 1) RGB separate/sync on green type analog input: 0–0.7 Vp-p, positive, 75 Ω terminated HORIZONTAL SYNC. SIGNAL: TTL level (positive/negative) VERTICAL SYNC. SIGNAL: Same as above
Pixel clock	25–135 MHz
Vertical frequency	56–85 Hz
Horizontal frequency	31.5–80 kHz
Audio input signal	3.5 ø MINIJACK: AUDIO, 0.4 Vrms, more than 47 kΩ (stereo)
Audio output	2.0 W (monaural)
Speaker system	4 × 2.8 cm
Rated voltage	AC 100–240 V
Input current	2.0 A
Rated frequency	50/60 Hz
Power consumption	180 W
Power dissipation	<680 BTU/hour
Operating temperature	41°F to 95°F (+5°C to +35°C)
Storage temperature	4°F to 140°F (−20°C to +60°C)
Cabinet	Magnesium alloy (Terminal panel, Lamp cover and Side vent cover constructed of plastic)
I/R carrier frequency	38 kHz
Dimensions (approx.)	8 55/64″ × 1 31/32″ × 6 59/64″ (225 (W) × 50 (H) × 176 (D) mm) (main body only) 8 55/64″ × 2 19/32″ × 6 31/32″ (225 (W) × 66 (H) × 177 (D) mm) (including adjustment feet and projecting parts)
Weight (approx.)	3.5 lbs (1.6 kg)
Supplied accessories	Remote control, Two AAA size batteries, Power cord for U.S., Canada etc. (5′ 11″, 1.8 m), Power cord for Europe, except U.K. (5′ 11″, 1.8 m), Power cord for U.K., Hong Kong and Singapore (5′ 11″, 1.8 m), Power cord for Australia, New Zealand and Oceania (5′ 11″, 1.8 m), DVI-Analog to VGA cable (5′ 11″, 1.8 m), DVI-Analog to VGA adaptor, PC audio cable (6′ 7″, 2.0 m), DIN-D-sub RS-232C cable (6′ 1/2″, 16.5 cm), Computer RGB cable (5′ 11″, 1.8 cm), USB mouse control cable (5′ 11″, 1.8 m), Video cable (5′ 11″, 1.8 m), S-video cable (5′ 11″, 1.8 m), AV audio cable (5′ 11″, 1.8 m), Soft carrying pouch, Lenscap with strap, CD-ROM, Projector operation manual, Projector quick reference guide
Replacement parts	Remote control (9HJ7583104001), AAA size battery (9HJ4683101001), Power cord for U.S., Canada etc. (9HJ4283114001), Power cord for Europe, except U.K. (9HJ4283116001), Power cord for U.K., Hong Kong and Singapore (9HJ4283117001), Power cord for Australia, New Zealand and Oceania (9HJ4283118001), DVI-Analog to VGA cable (9HJ4283119001), DVI-Analog to VGA adaptor (9HJ4283124001), PC audio cable (9HJ4283120001), DIN-D-sub RS-232C cable (9HJ4283123001), Computer RGB cable (9HJ4283111001), USB mouse control cable (9HJ4283122001), Video cable (9HJ4283112001), S-video cable (9HJ4283113001), AV audio cable (9HJ4283121001), Soft carrying pouch (9HJ5383101001), Lens cap with strap (9HJ7083117001), CD-ROM (9HJ3683104001), Projector operation manual (9HJ3683107001), Projector quick reference guide (9HJ3683110001)

This SHARP projector uses a DMD panel. This very sophisticated panel contains 786,432 (PG-M15X)/480,000 (PG-M15S) pixels. As with any high technology electronic equipment such as large screen TVs, video systems and video cameras, there are certain acceptable tolerances that the equipment must conform to.

This unit has some inactive pixels within acceptable tolerances which may result in inactive dots on the picture screen. This will not affect the picture quality or the life expectancy of the unit.

Specifications are subject to change without notice.

IMPORTANT SERVICE SAFETY NOTES (for USA)

■ **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and servicing guidelines as follows:**

WARNING

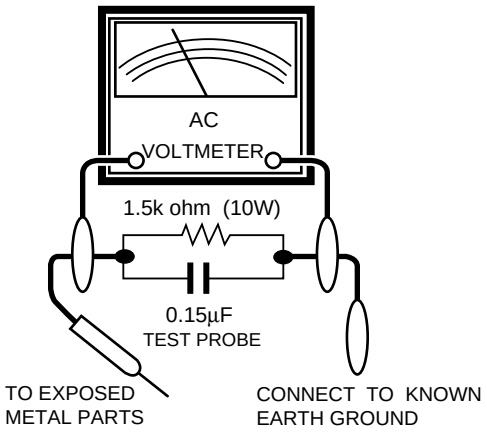
1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

BEFORE RETURNING THE PROJECTOR: (Fire & Shock Hazard)

Before returning the projector to the user, perform the following safety checks:

1. Inspect lead wires are not pinched between the chassis and other metal parts of the projector.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for current leakage in the following manner:

- Plug the AC cord directly into a 120-volt AC outlet, (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in parallel between all exposed metal cabinet parts and earth ground.
- Use an AC voltmeter with sensitivity of 5000 ohm per volt., or higher, sensitivity to measure the AC voltage drop across the resistor (See Diagram).
- All checks must be repeated with the AC plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these checks.)
  Any reading of 0.3 volts RMS (this corresponds to 0.2 milliamp. AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.



SAFETY NOTICE

Many electrical and mechanical parts in Projector have special safety-related characteristics.
These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the Replacement Parts Lists and Schematic Diagrams. For continued protection, replacement parts must be identical to those used in the original circuit. The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

WARNING: The bimetallic component has the primary conductive side exposed. Be very careful in handling this component when the power is on.

AVIS POUR LA SECURITE

De nombreuses pièces, électriques et mécaniques, dans les projecteur à présentent des caractéristiques spéciales relatives à la sécurité, qui ne sont souvent pas évidentes à vue.
Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.
Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont identifiées par la marque "⚠" et hachurées dans la liste des pièces de remplacement et les diagrammes schématiques. Pour assurer la protection, ces pièces doivent être identiques à celles utilisées dans le circuit d'origine. L'utilisation de pièces qui n'ont pas les mêmes caractéristiques que les pièces recommandées par l'usine, indiquées dans ce manuel, peut provoquer des électrocutions, incendies ou autres accidents.

AVERTISSEMENT: La composante bimétallique dispose du conducteur primaire dénudé. Faire attention lors de la manipulation de cette composante sous tension.

NOTE TO SERVICE PERSONNEL

UV-RADIATION PRECAUTION

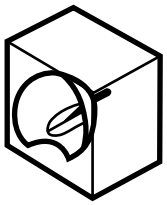
The light source, metal halide lamp, in the projector emits small amounts of UV-Radiation.

AVOID DIRECT EYE AND SKIN EXPOSURE.

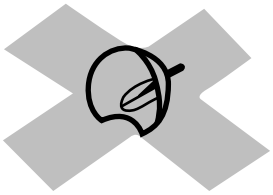
To ensure safety please adhere to the following:

1. Be sure to wear sun-glasses when servicing the projector with the lamp turned “on” and the top enclosure removed.

2. Do not operate the lamp outside of the lamp housing.



3. Do not operate for more than 2 hours with the enclosure removed.



UV-Radiation and Medium Pressure Lamp Precautions

1. Be sure to disconnect the AC plug when replacing the lamp.
2. Allow one hour for the unit to cool down before servicing.
3. Replace only with same type lamp. Type 9HJ7083119001 or BQC-PGM15X//1 rated 85V/130W.
4. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
5. The medium pressure lamp involves a risk of explosion. Be sure to follow installation instructions described below and handle the lamp with care.

NOTE POUR LE PERSONNEL D’ENTRETIEN

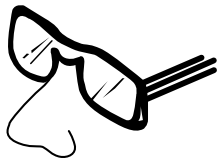
PRECAUTION POUR LES RADIATIONS UV

La source de lumière, la lampe métal halide, dans le projecteur émet de petites quantités de radiation UV.

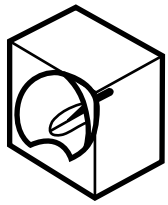
EVITEZ TOUTE EXPOSITION DIRECTE DES YEUX ET DE LA PEAU.

Pour votre sécurité, nous vous prions de respecter les points suivants:

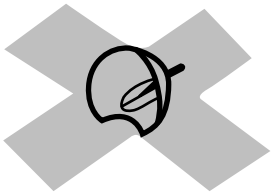
1. Toujours porter des lunettes de soleil lors d’un entretien du projecteur avec la lampe allumée et le haut du coffret retiré.



2. Ne pas faire fonctionner la lampe à l’extérieur du boîtier de lampe.



3. Ne pas faire fonctionner plus de 2 heures avec le coffret retiré.



Précautions pour les radiations UV et la lampe moyenne pression

1. Toujours débrancher la fiche AC lors du remplacement de la lampe.
2. Laisser l’unité refroidir pendant une heure avant de procéder à l’entretien.
3. Ne remplacer qu’avec une lampe du même type. Type 9HJ7083119001 ou BQC-PGM15X//1 caractéristique 85V/130W.
4. La lampe émet de petites quantités de radiation UV- éviter tout contact direct avec les yeux.
5. La lampe moyenne pression implique un risque d’explosion. Toujours suivre les instructions d’installation décrites ci-dessous et manipuler la lampe avec soin.

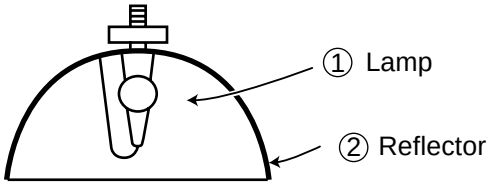
UV-RADIATION PRECAUTION (Continued)

■ Lamp Replacement

Note:

Since the lamp reaches a very high temperature during units operation replacement of the lamp should be done at least one hour after the power has been turned off. (to allow the lamp to cool off.) Installing the new lamp, make sure not to touch the lamp (bulb) replace the lamp by holding its reflector ②.

[Use original replacement only.]



DANGER ! — Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages at its start.

Since small amounts of UV-Radiation are emitted from an opening between the duct cover and the lamp housing, it is recommended to place the LENS CAP on the opening during servicing to avoid eye and skin exposure (Fig. 1).

Note: Please obtain a lens cap before servicing a models PG-M15X/M15S that is received without one.

Figure 1.

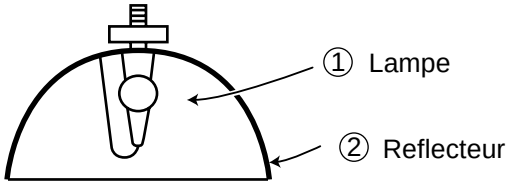
PRECAUTION POUR LES RADIATIONS UV (Suite)

■ Remplacement de la lampe

Remarque:

Comme la lampe devient très chaude pendant le fonctionnement de l'unité, son remplacement ne doit être effectué au moins une heure après avoir coupé l'alimentation (pour permettre à la lampe de refroidir). En installant la nouvelle lampe, s'assurer de ne pas toucher la lampe (ampoule). Remplacer la lampe en tenant son réflecteur ②.

[N'utiliser qu'un remplacement d'origine.]



DANGER ! — Ne jamais mettre sous tension sans la lampe pour éviter un choc électrique ou des dommages des appareils car le stabilisateur génère de hautes tensions à sa mise en route.

Comme de petites quantités de radiation UV sont émises par une ouverture entre le couvercle du conduit et le botier de la lampe,il est recommandé de placer le CAPUCHON D'OPTIQUE sur l'ouverture pendant l'entretien pour éviter une exposition des yeux et la peau (Fig. 1).

Remarque: Priére de se procurer un capuchon d'optique acant d'entretien un modéle PG-M15X/M15S qui est livré sans.

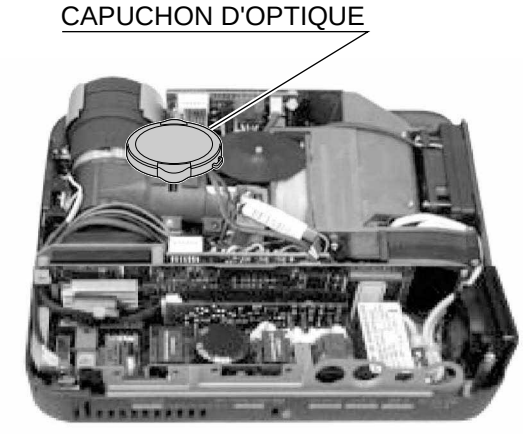
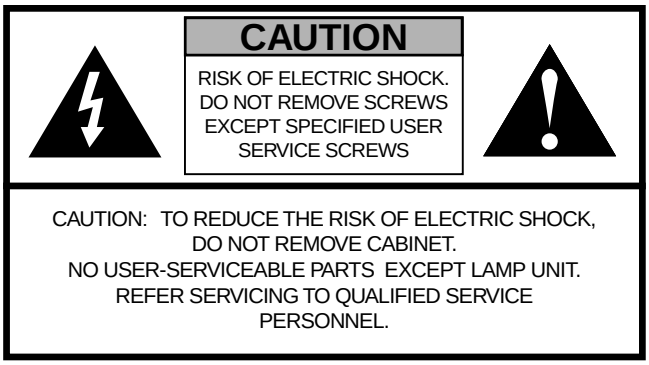


Figure 1.

WARNING: High brightness light source, do not stare into the beam of light, or view directly. Be especially careful that children do not stare directly in to the beam of light.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO MOISTURE OR WET LOCATIONS.

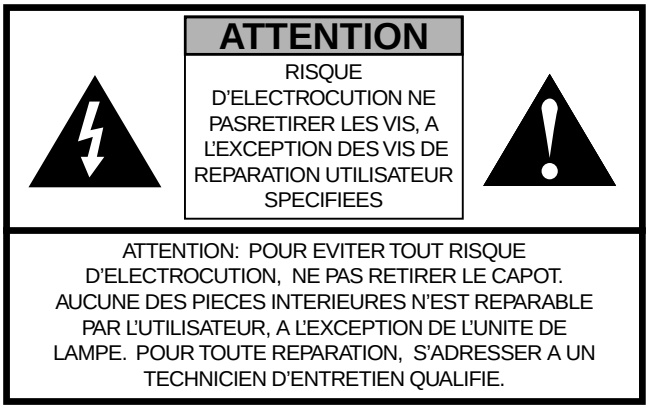


The lighting flash with arrowhead within a triangle is intended to tell the user that parts inside the product are risk of electric shock to persons.

The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the manual with the projector.

AVERTISSEMENT: Source lumineuse de grande intensité. Ne pas fixer le faisceau lumineux ou le regarder directement. Veiller particulièrement à éviter que les enfants ne fixent directement le faisceau lumineux.

AVERTISSEMENT: AFIN D'EVITER TOUT RISQUE D'INCENDIE OU D'ELECTROCUTION, NE PAS PLACER CET APPAREIL DANS UN ENDROIT HUMIDE OU MOUILLE.



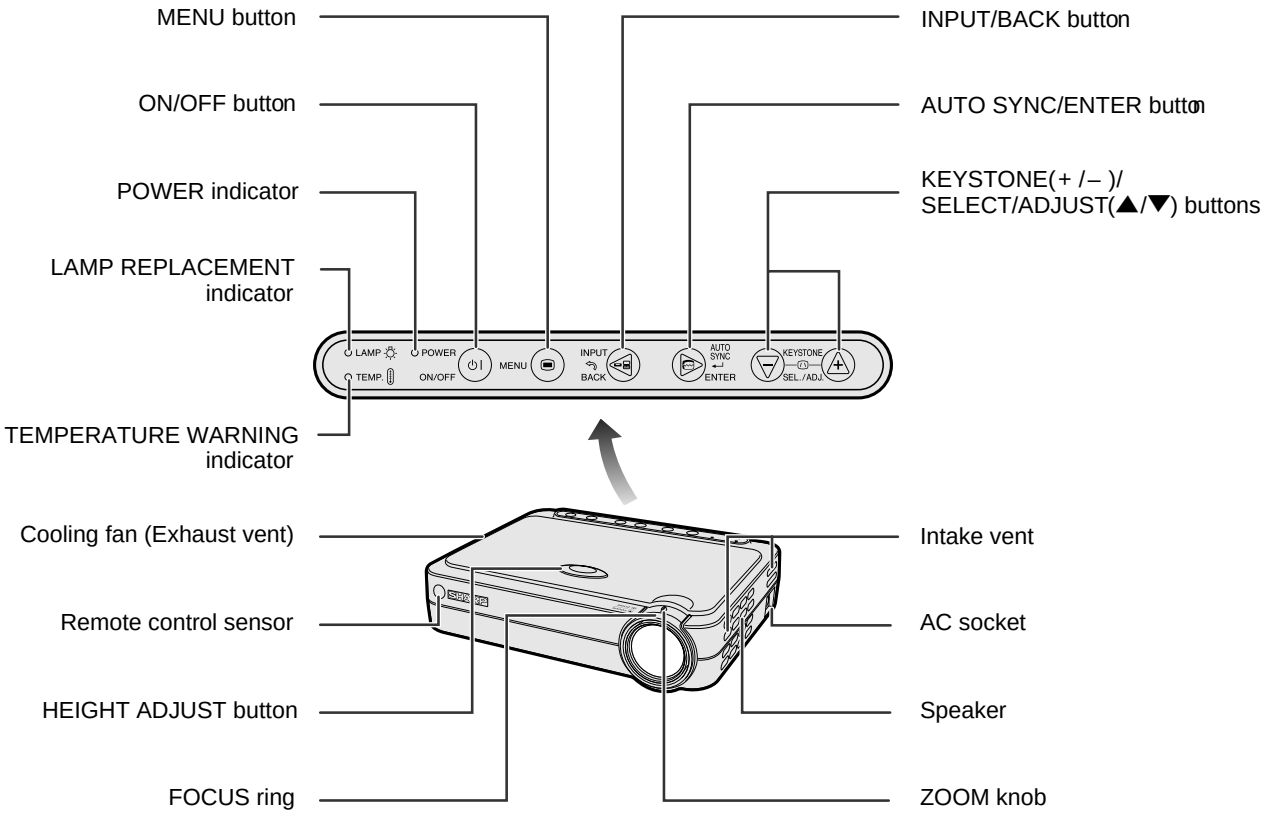
L'éclair terminé d'une flèche à l'intérieur d'un triangle indique à l'utilisateur que les pi'eces se trouvant dans l'appareil sont susceptibles de provoquer une décharge électrique.

Le point d'exclamation à l'intérieur d'un triangle indique à l'utilisateur que les instructions de fonctionnement et d'entretien sont détaillées dans les documents fournis avec le projecteur.

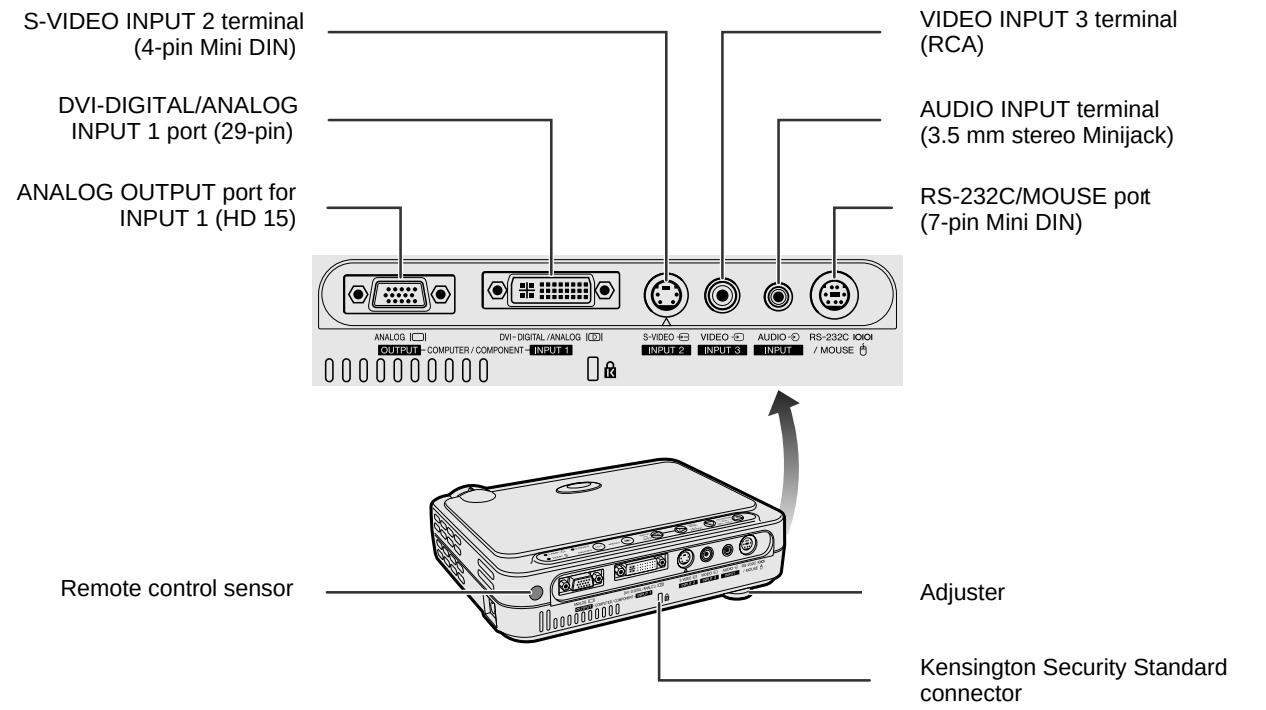
Location of Controls

Projector

Front and Top View



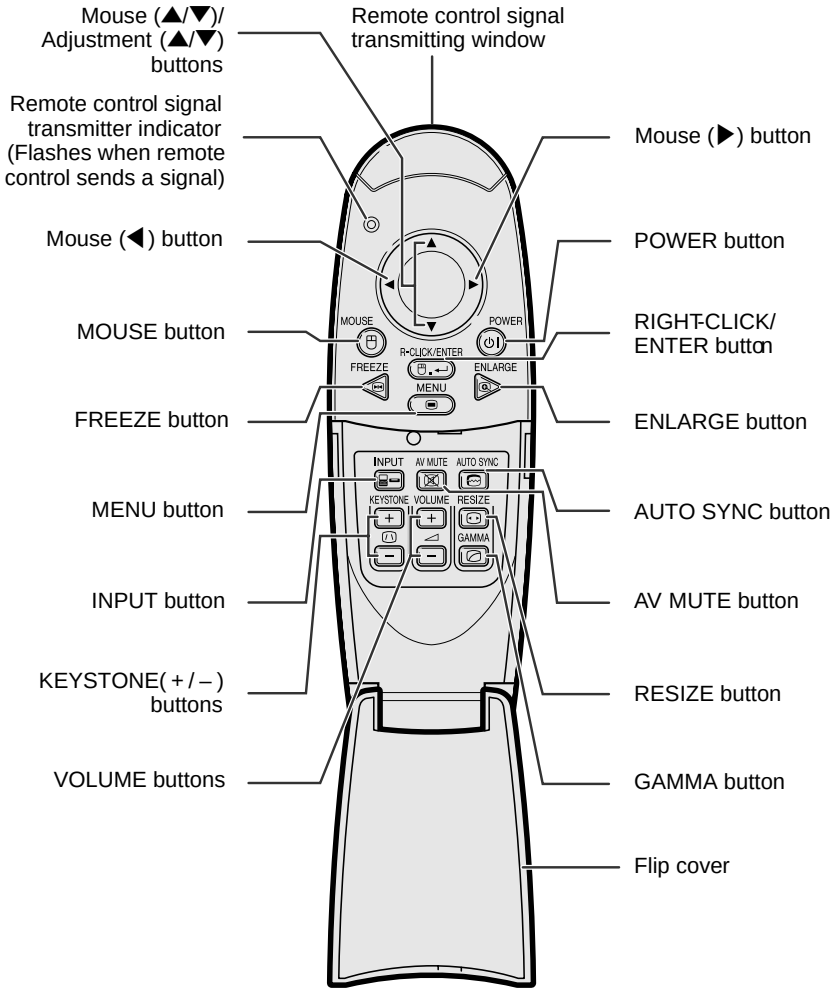
Side and Rear View



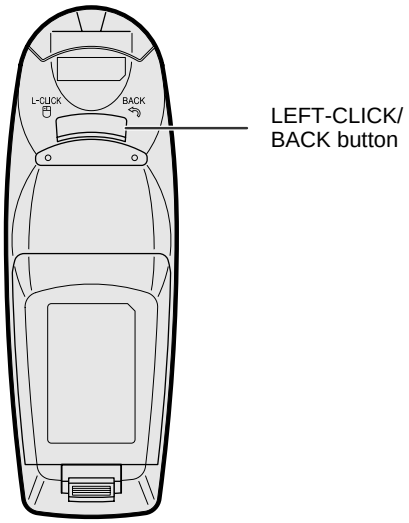
Operating the Wireless Mouse Remote Control

Remote Control

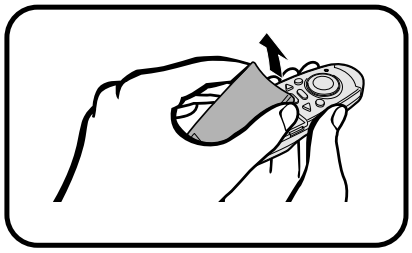
Front View



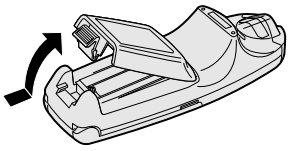
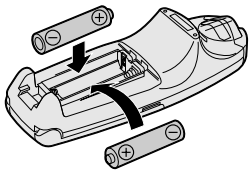
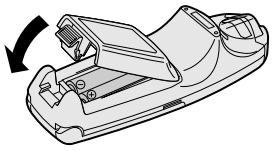
Rear View



Opening the Flip Cover



Inserting the Batteries

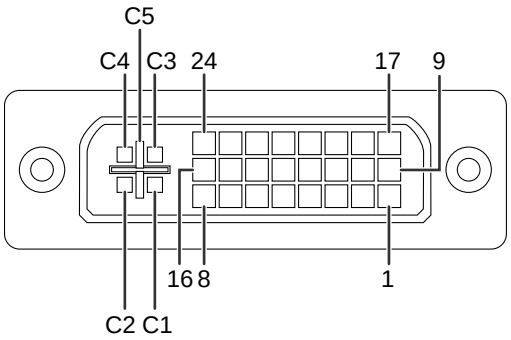
1	2	3
Press the tab and lift open the battery cover in the direction of the arrow.	**Insert two AAA size batteries, making sure their polarities match the + and – marks inside the battery compartment.**	**Insert the tabs on the end of the battery cover into their slots and press the cover into position.**
		

NOTE

- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- If you will not be using the remote control for a long time, remove the batteries.
- Do not mix new and old or different types of batteries.
- There are operations that can only be carried out by remote control. Handle the remote control carefully.

Connection Pin Assignments

DVI INPUT 1 Port: 29-pin



NOTE

- *1 Return for +5 V, Hsync. and Vsync.
- *2 These pins are not used on this equipment.

DVI input

Pin No.	Name
1	T.M.D.S. Data 2–
2	T.M.D.S. Data 2+
3	T.M.D.S. Data 2/4 Shield
4	T.M.D.S. Data 4– *2
5	T.M.D.S. Data 4+ *2
6	DDC Clock
7	DDC Data
8	Vertical Sync
9	T.M.D.S. Data 1–
10	T.M.D.S. Data 1+
11	T.M.D.S. Data 1/3 Shield
12	T.M.D.S. Data 3– *2
13	T.M.D.S. Data 3+ *2
14	+5 V Power
15	Ground*1
16	Hot Plug Detect
17	T.M.D.S. Data 0–
18	T.M.D.S. Data 0+
19	T.M.D.S. Data 0/5 Shield
20	T.M.D.S. Data 5– *2
21	T.M.D.S. Data 5+ *2
22	T.M.D.S. Clock Shield
23	T.M.D.S. Clock+
24	T.M.D.S. Clock–
C1	Analog input Red
C2	Analog input Green
C3	Analog input Blue
C4	Horizontal Sync
C5	Ground

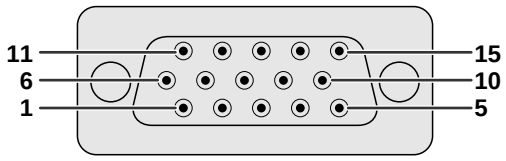
RGB input

Pin No.	Name
1	Not connected
2	Not connected
3	Not connected
4	Not connected
5	Not connected
6	DDC Clock
7	DDC Data
8	Vertical Sync
9	Not connected
10	Not connected
11	Not connected
12	Not connected
13	Not connected
14	+5 V Power
15	Ground
16	Not connected
17	Not connected
18	Not connected
19	Not connected
20	Not connected
21	Not connected
22	Not connected
23	Not connected
24	Not connected
C1	Analog input Red
C2	Analog input Green
C3	Analog input Blue
C4	Horizontal sync
C5	Ground

COMPONENT input

Pin No.	Name
1	Not connected
2	Not connected
3	Not connected
4	Not connected
5	Not connected
6	Not connected
7	Not connected
8	Not connected
9	Not connected
10	Not connected
11	Not connected
12	Not connected
13	Not connected
14	Not connected
15	Ground
16	Not connected
17	Not connected
18	Not connected
19	Not connected
20	Not connected
21	Not connected
22	Not connected
23	Not connected
24	Not connected
C1	Analog input Pr
C2	Analog input Y
C3	Analog input Pb
C4	Not connected
C5	Ground

OUTPUT (INPUT 1) Signal Port: 15-pin Mini D-sub female connector



RGB output

Analog

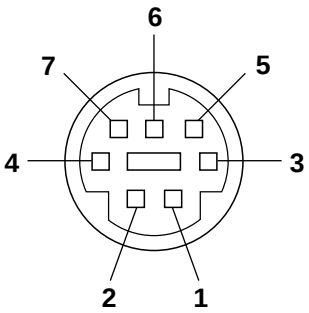
1	Video output (red)
2	Video output (green/sync on green)
3	Video output (blue)
4	Not connected
5	Not connected
6	Earth (red)
7	Earth (green/sync on green)
8	Earth (blue)
9	Not connected
10	GND
11	GND
12	Not connected
13	Horizontal sync signal
14	Vertical sync signal
15	Not connected

COMPONENT output

Analog

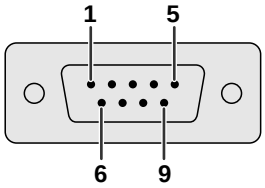
1	P_R (C_R)
2	Y
3	P_B (C_B)
4	Not connected
5	Not connected
6	Earth (P_R)
7	Earth (Y)
8	Earth (P_B)
9	Not connected
10	Not connected
11	Not connected
12	Not connected
13	Not connected
14	Not connected
15	Not connected

RS-232C Terminal: 7-pin Mini DIN female connector



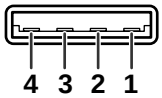
Pin No.	Signal	Name
1	VCC (USB)	USB Power
2	RD	Receive Data
3	SD	Send Data
4	USB (−)	USB Data (−)
5	GND	Signal Ground
6	USB (+)	USB Data (+)
7	NC	(Reserved)

RS-232C Port: 9-pin D-sub male connector of the DIN-D-sub RS-232C cable



Pin No.	Signal	Name
1	CD	
2	RD	Receive Data
3	SD	Send Data
4	ER	
5	SG	Signal Ground
6	DR	Data Set Ready
7	RS	Request to Send
8	CS	Clear to Send
9	CI	

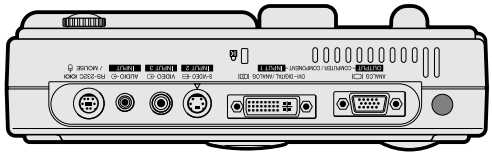
USB connector: 4-pin USB connector of the USB mouse control cable



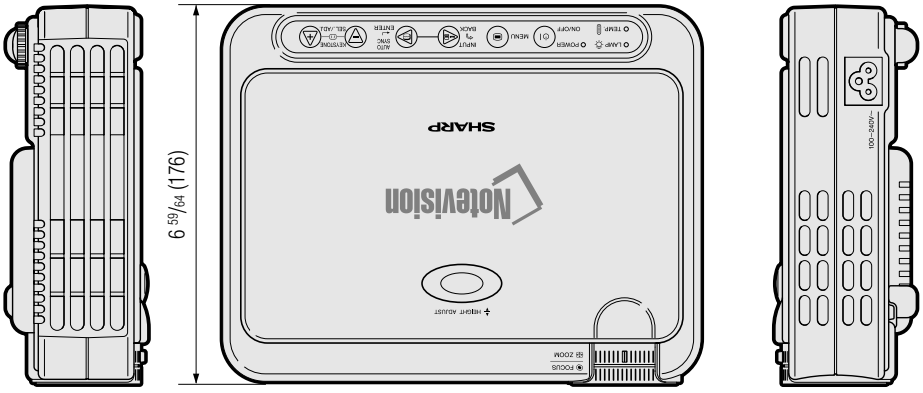
Pin No.	Signal	Name
1	VCC	USB Power
2	USB−	USB Data−
3	USB+	USB Data+
4	SG	Signal Ground

Dimensions

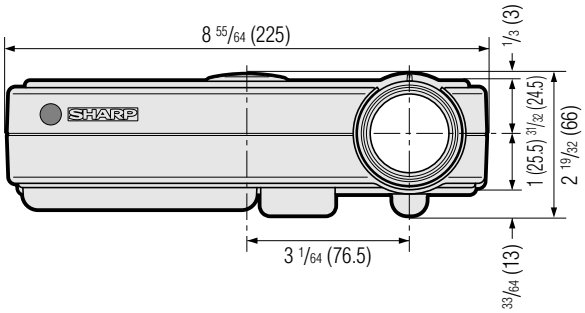
Rear View



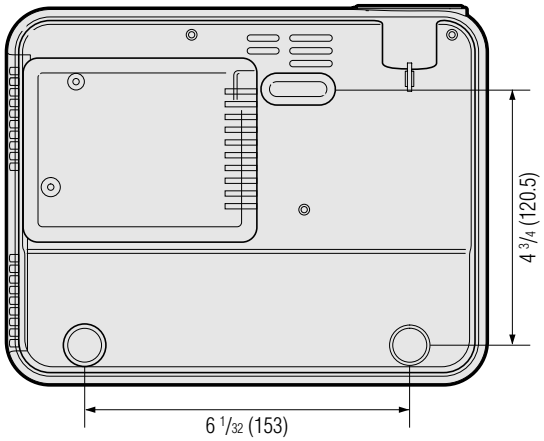
Top View



Side View



Front View



Bottom View

Units: inches (mm)

REMOVING OF MAJOR PARTS

Tools required

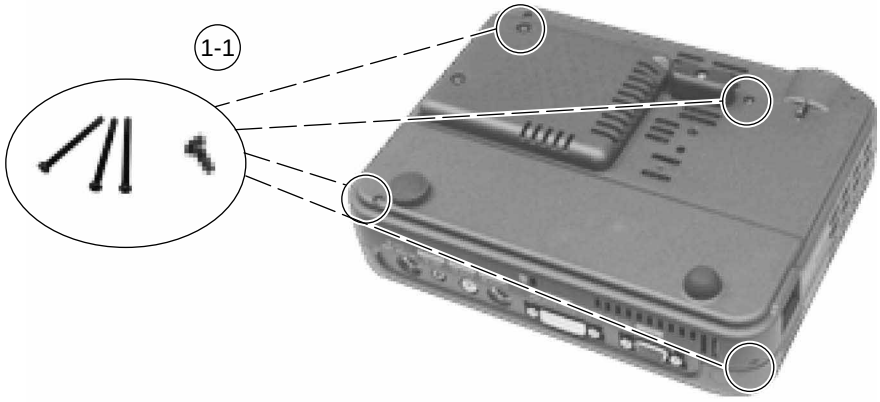
1. Philips screw driver (Size : 1, 2)
2. Nut driver (2.5mm)
3. Ball end hexagonal driver (5.0mm)

1. Disassemble Top Cover Module, Main PWB Unit and DC to DC PWB Unit

1-1. Remove four screws on Bottom Cover. (Refer to Step 1, 2.)

Step 1

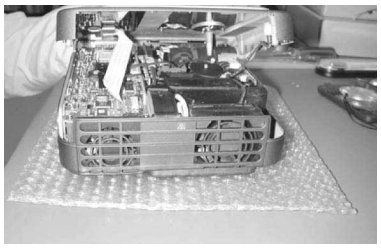
Step 2



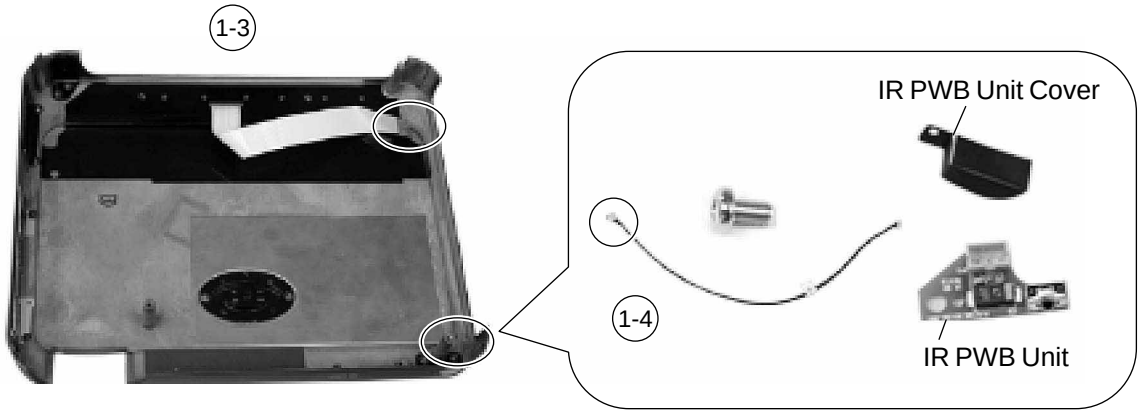
1-2. Lift up Top Cover and unplug two wires connected to IR PWB Unit and Main Unit. (Refer to Step 3~5.)
1-3. Remove Top Cover.
1-4. Remove one screw to take off IR PWB Unit and IR PWB Unit Cover.
1-5. Remove four D-SUB shafts from the D-SUB Terminals to take off Terminal Sheet. (Refer to Step 6~7.)

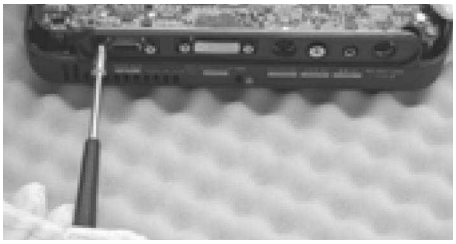
Step 3

Step 4

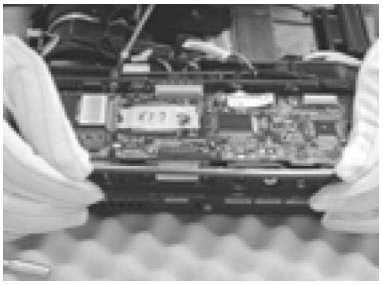


Step 5

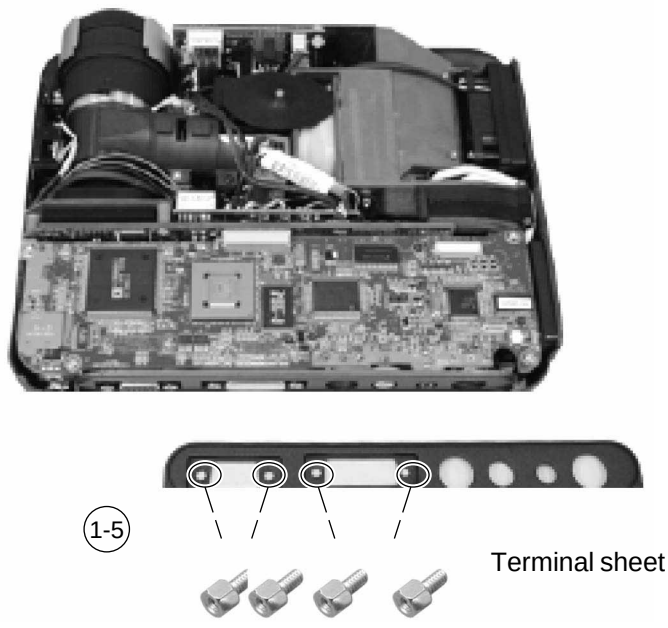




Step 6

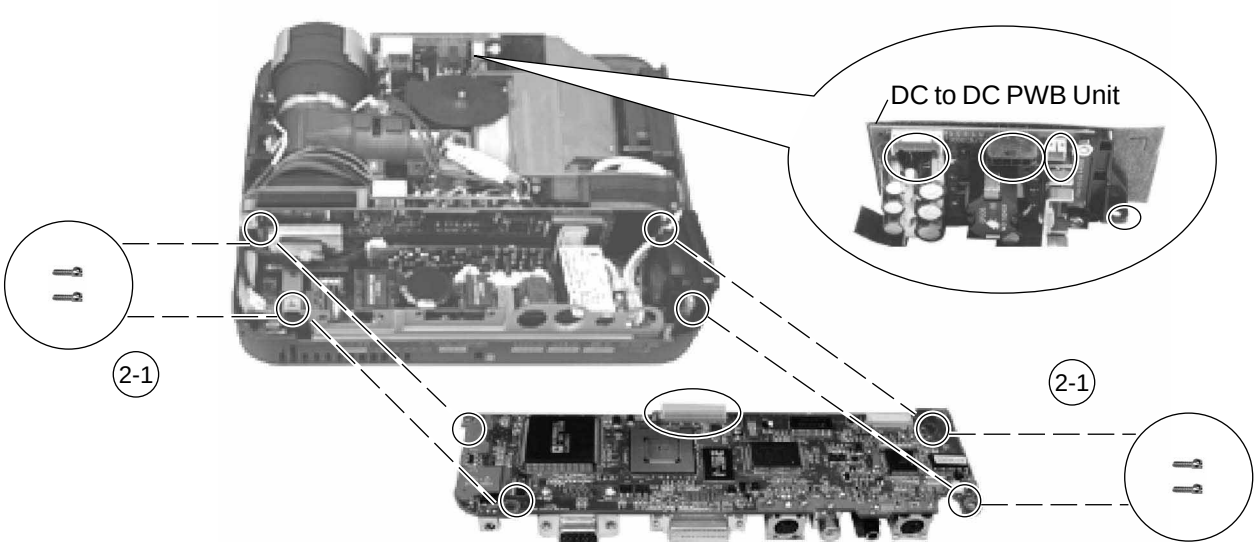


Step 7

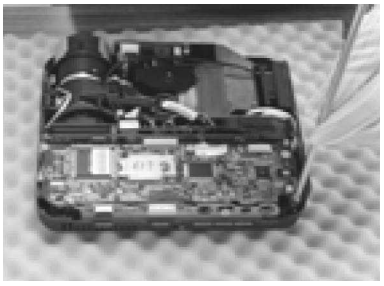


2. Disassemble Optical Engine Module

2-1. Remove 4 screws from main PWB unit.
2-2. Using a ball end hexagonal driver, loosen 2 screws holding terminal sheet holder. (approx. 4 rotation)(Step 8.)
2-3. Place a tool in between main PWB unit and formatter PWB unit and disconnect the connector. (Step 9.)
2-4. Pull the main unit outwards and remove main PWB unit. (Step 10,11.)

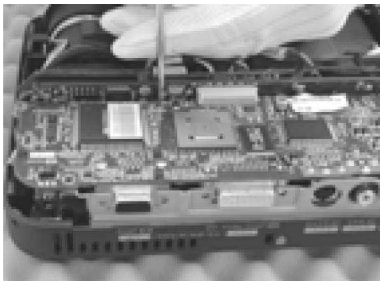


2-2

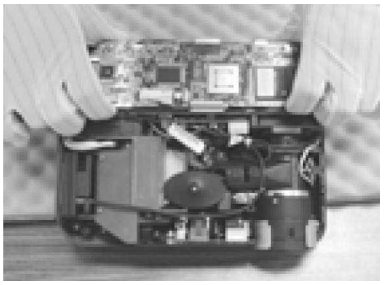


Step 8

2-3

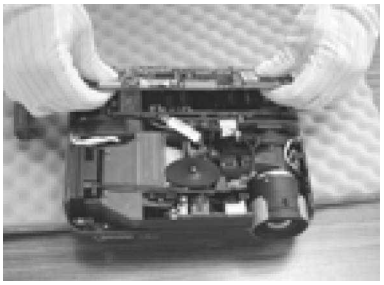


Step 9



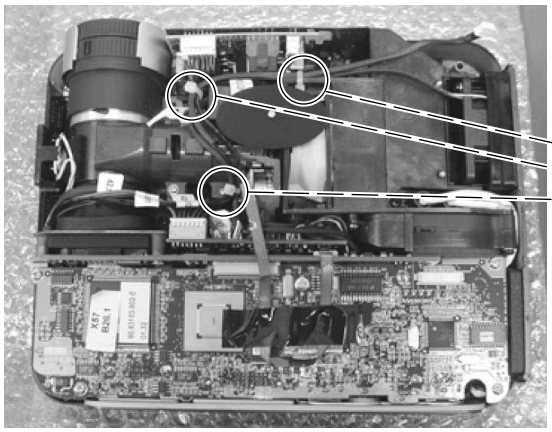
Step 10

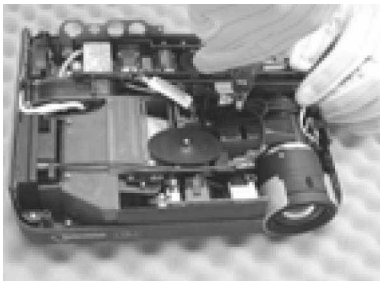
2-4



Step 11

2-5. Remove one screw of DC to DC PWB Unit Holder, unplug three Connecting Cords, and then detach DC to DC PWB Unit.
(Step 12,13.)
2-6. Remove push bar, push bar spring, and rubber. (refer to step 14~16.)

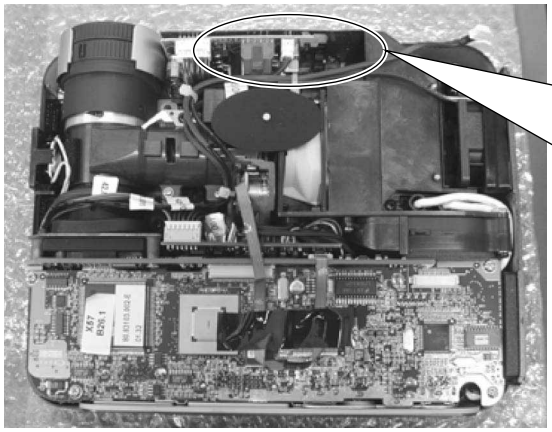


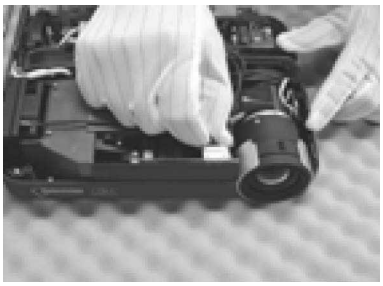


Cut three cable tie from Optical Engine Module.

Step 12

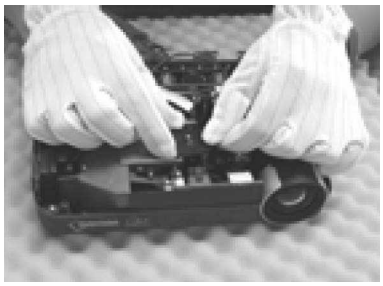
2-5



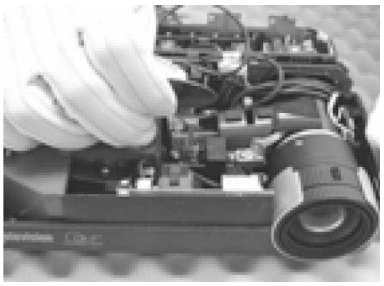


Unplug three Connecting Cords of DC to DC PWB Unit

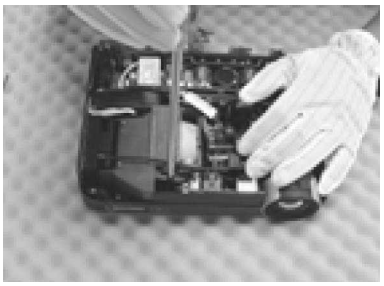
Step 13



2-6

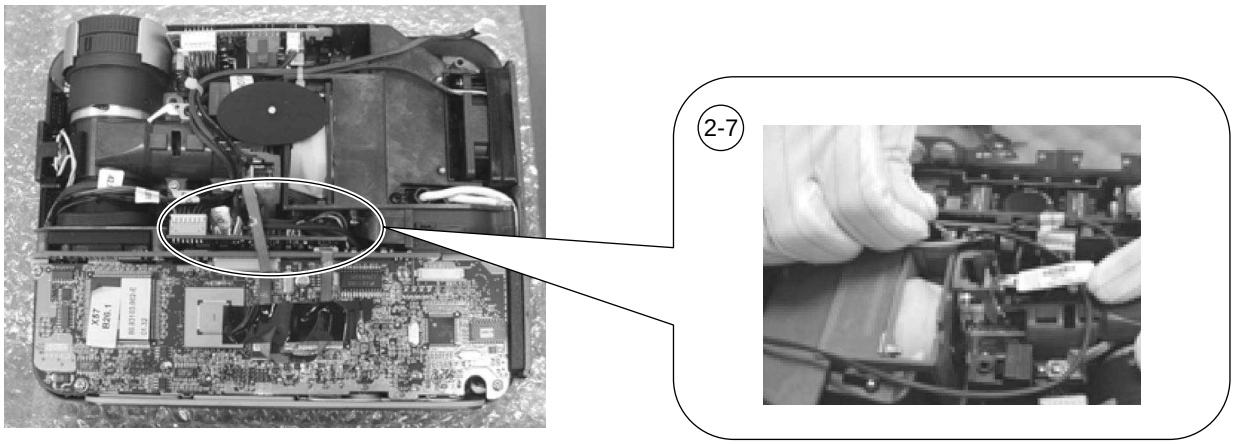


2-6

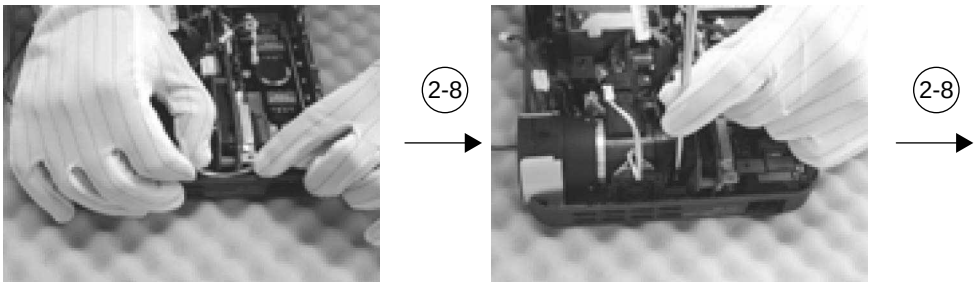


Step 14 Step 15 Step 16

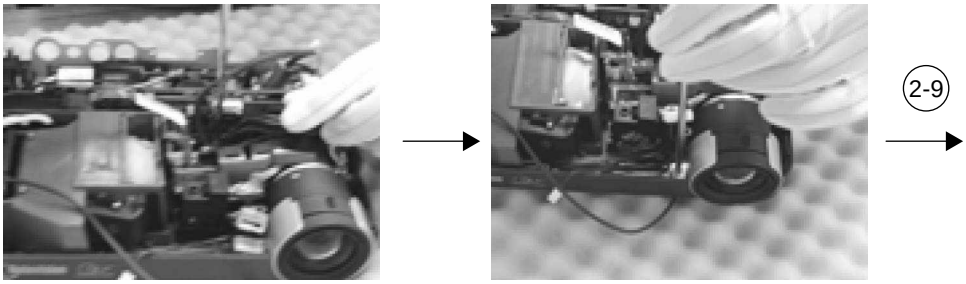
2-7. Unplug six wires of Thermal PWB Unit. (Step 17.)
2-8. Remove 5 screws from optical engine module (Step 18~20.)
2-9. Remove 2 screws from projection lens cover. (Step 21.)
2-10. Remove optical engine module, projection lens cover, and Thermal Unit. (Step 22, 23.)



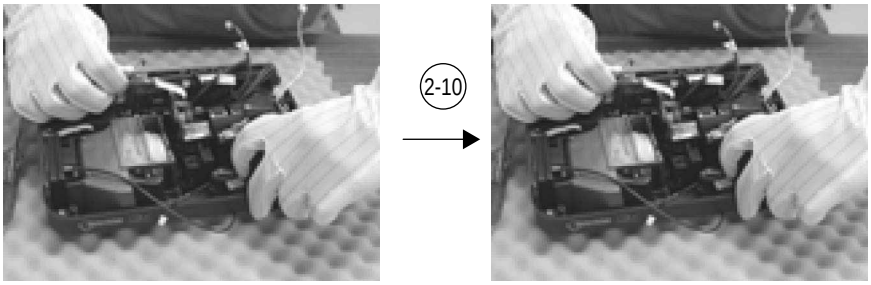
Step 17



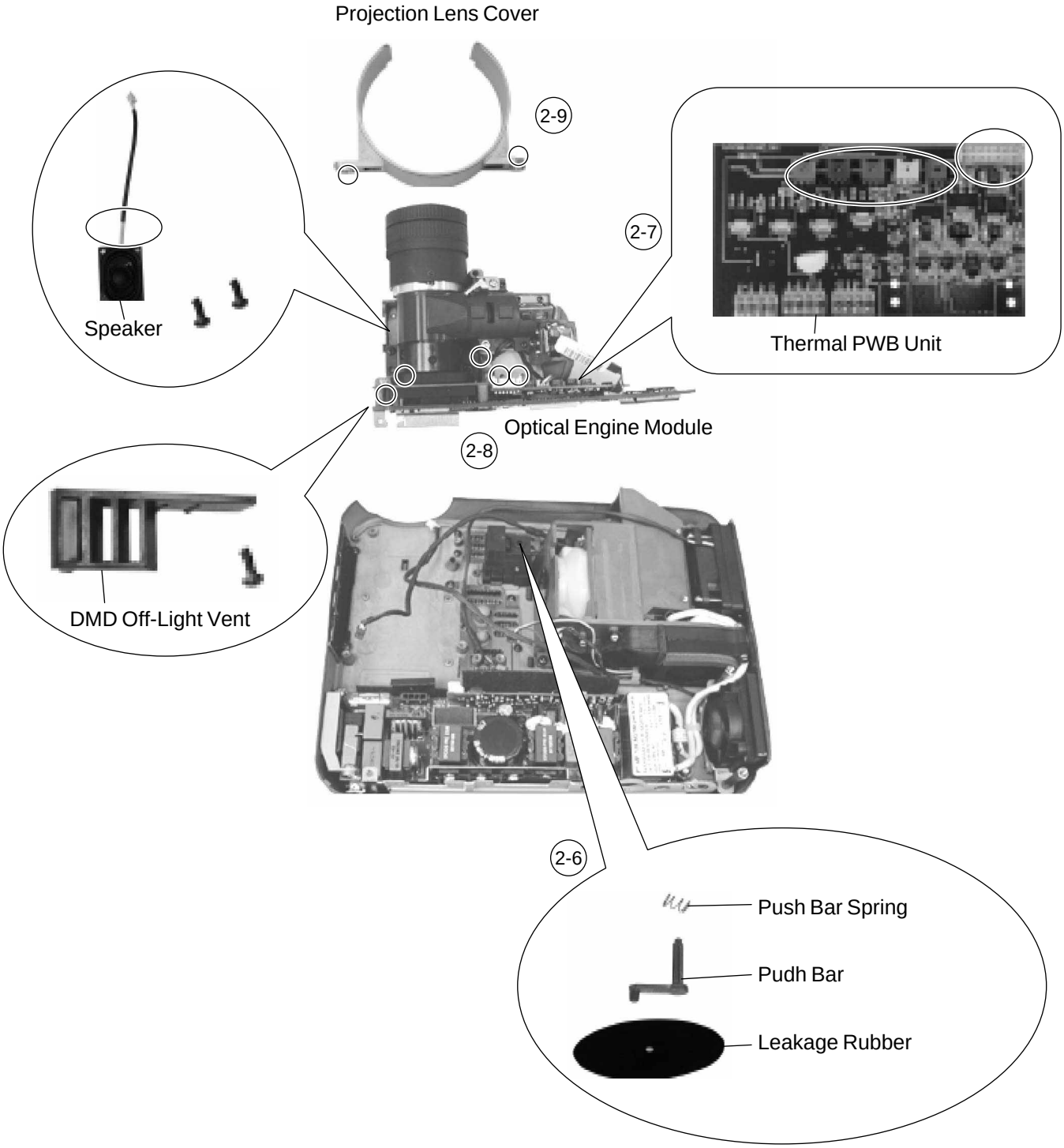
Step 18 Step 19



Step 20 Step 21

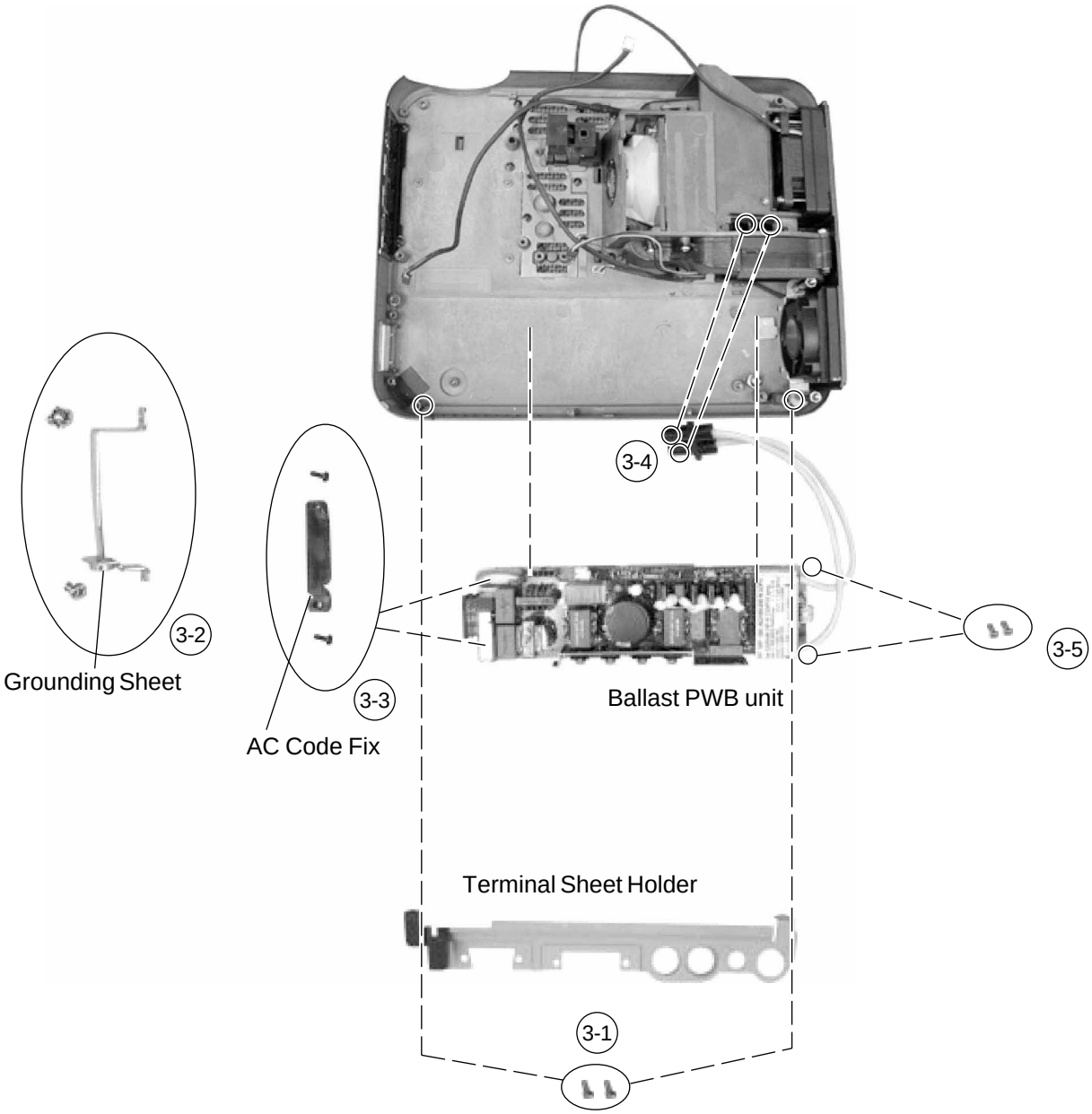


Step 22 Step 23


Projection Lens Cover
2-9
2-7
Speaker
Thermal PWB Unit
Optical Engine Module
2-8
DMD Off-Light Vent
2-6
Push Bar Spring
Pudh Bar
Leakage Rubber

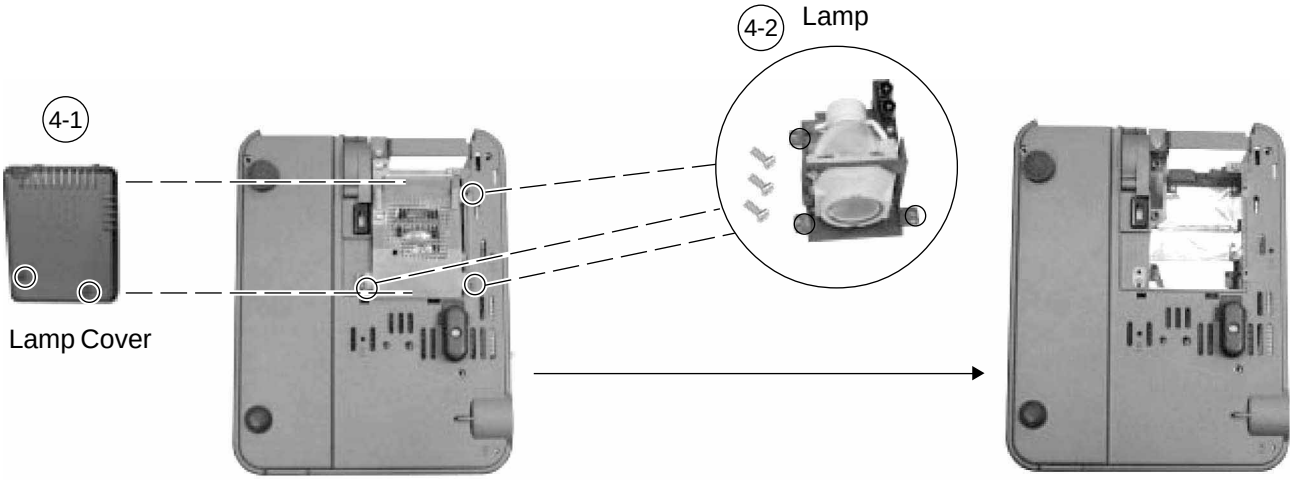
3. Disassemble Ballast PWB unit

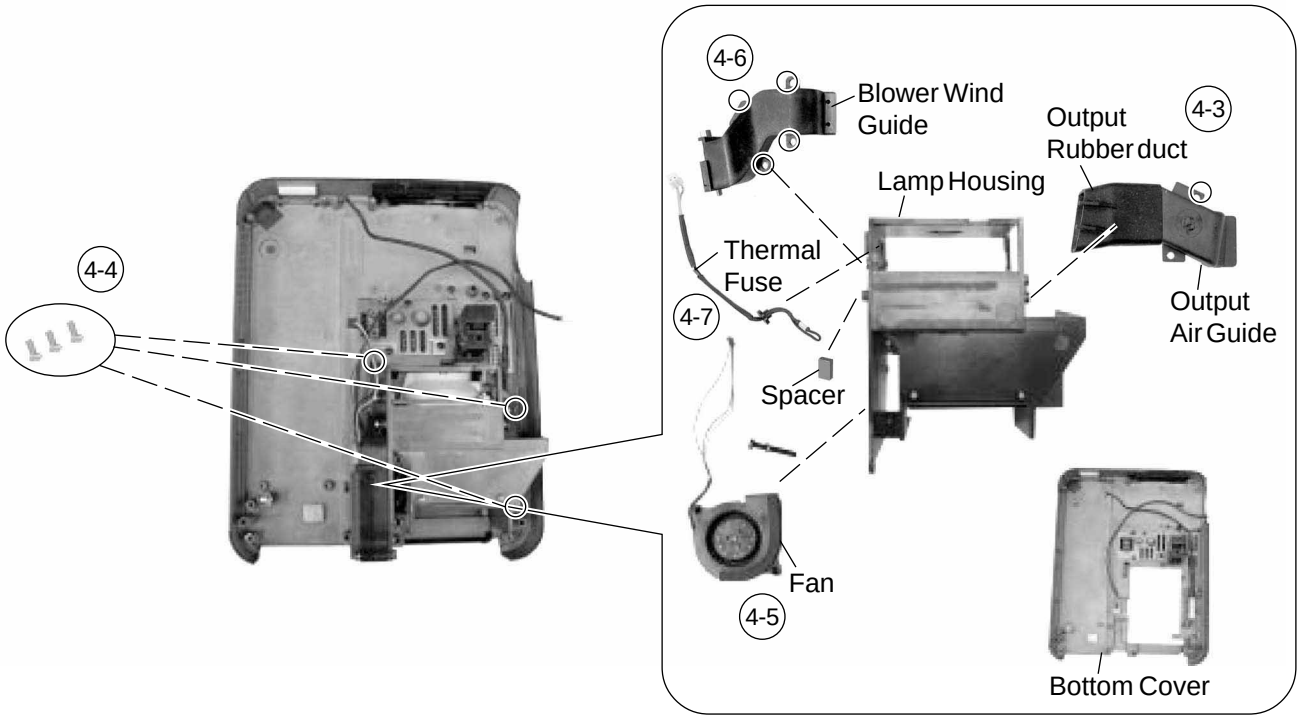
3-1. Remove two screws and detach Terminal Sheet Holder.
3-2. Remove two screws and detach Grounding Sheet.
3-3. Remove two screws and detach AC Code Fix.
3-4. Remove two screws and detach ignitor cable from Lamp Housing.
3-5. Remove two screws and detach Ballast PWB unit.



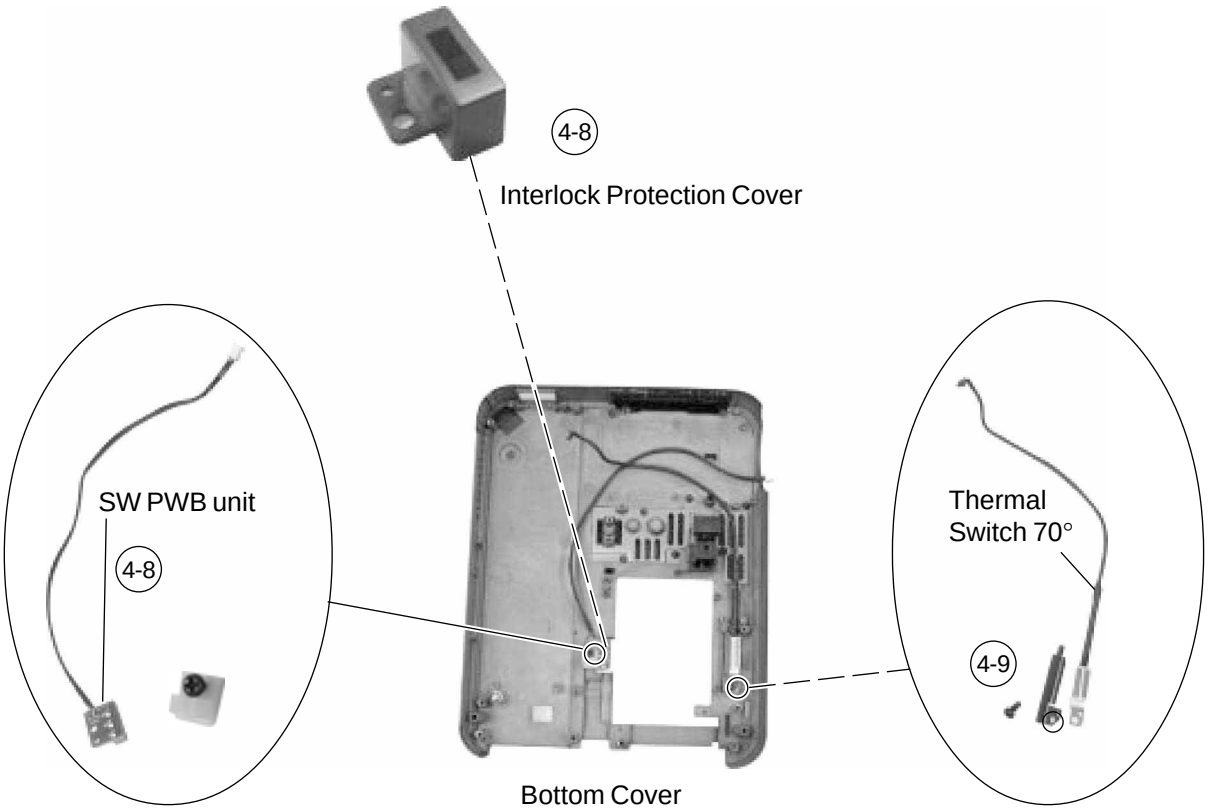
4. Disassemble Lamp Housing

4-1. Loosen two screws and remove Lamp Cover.
4-2. Loosen three screws and lift Lamp.
4-3. Remove screw and detach Output Air Guide and Output Rubber duct.
4-4. Remove three screws and detach Lamp Housing.
4-5. Remove screw and nut then detach Fan from Lamp Housing.
4-6. Remove four screws and detach Blower Wind Guide from Lamp Housing.
4-7. Remove thermal Fuse from lamp Housing.



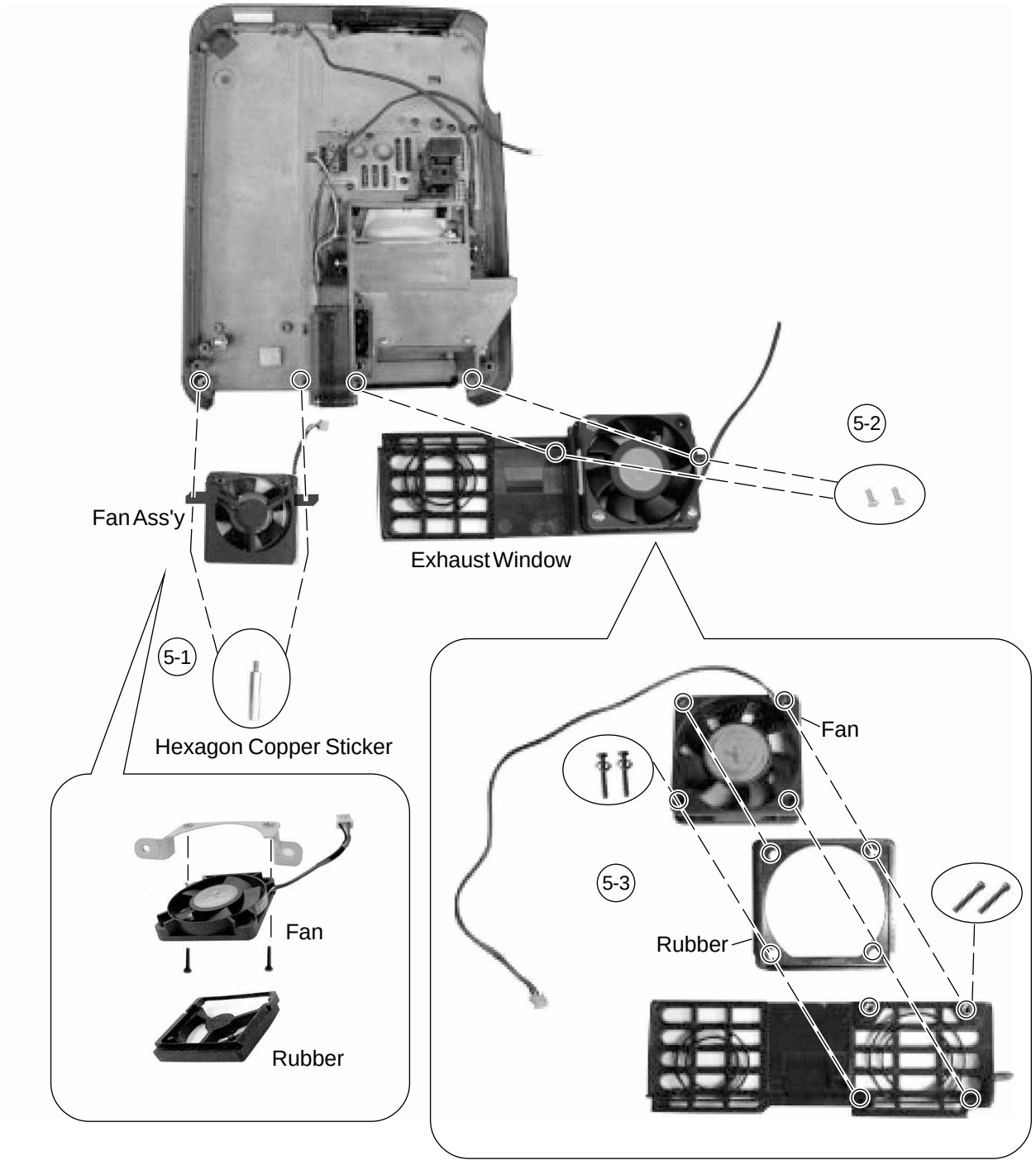


4-8. Remove screw and detach SW PWB unit and Interlock Protection Cover.
4-9. Remove screw and detach Thermal Switch.



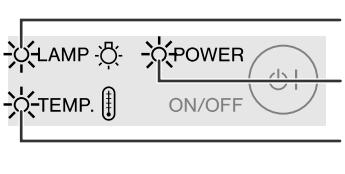
5. Disassemble Fan Module

5-1. Remove two Hexagon Copper Sticker and detach Assy Fan.
5-2. Remove two screws and detach Exhaust Window Assy.
5-3. Remove two screws and detach Fan and Rubber.



RESETTING THE TOTAL LAMP TIMER

Maintenance Indicators



LAMP REPLACEMENT indicator

POWER indicator

TEMPERATURE WARNING indicator

- The warning lights on the projector indicate problems inside the projector.
- There are two warning lights: a TEMPERATURE WARNING indicator which warns that the projector is too hot, and a LAMP REPLACEMENT indicator which lets you know when to change the lamp.
- If a problem occurs, either the TEMPERATURE WARNING indicator or the LAMP REPLACEMENT indicator will illuminate red. After turning off the power, follow the procedures given below.

Maintenance Indicator	Condition	Problem	Possible Solution
TEMPERATURE WARNING indicator	The internal temperature is abnormally high.	• Blocked air intake.	• Relocate the projector to an area with proper ventilation.
		• Cooling fan breakdown. • Internal circuit failure.	• Take the projector to your nearest Sharp Authorized Projector Dealer or Service Center for repair.
	The indicator flashes in red.	• Cooling down.	• Wait until the indicator stops flashing and turns off.
LAMP REPLACEMENT indicator	The lamp does not illuminate.	• Burnt-out lamp. • Lamp circuit failure. • The lamp caga cover is not securely installed.	• Carefully replace the lamp. • Take the projector to your nearest Sharp Authorized Projector Dealer or Service Center for repair.
	The lamp requires replacement.	• Lamp has been used for over 1,400 hours.	

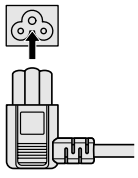
NOTE

- If the TEMPERATURE WARNING indicator illuminates, follow the above possible solutions and then wait until the projector has cooled down completely before turning the power back on. (At least 5 minutes.)
- If the power is turned off and then turned on again, as during a brief rest, the LAMP REPLACEMENT indicator may be triggered, preventing the power from going on. Should this occur, take the power cord out of the wall outlet and put it back in again.

Resetting the lamp timer

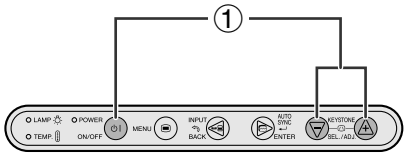
1 Connect the power cord.

Plug the power cord into the AC socket of the projector.

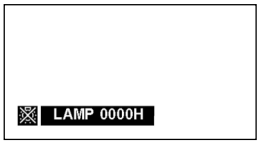


2 Reset the lamp timer.

① Press **KEYSTONE (+)** and **KEYSTONE (–)** simultaneously and **ON/OFF** at the same time.



"LAMP 0000H" is displayed, indicating that the lamp timer is reset.



NOTE

- Reset the lamp timer only after replacing the lamp.

Lamp

The lamp in this projector operates for approximately 1,500 cumulative hours, depending on the usage environment. It is recommended that the lamp be replaced after 1,400 cumulative hours of use or when you notice a significant deterioration of the picture and color quality. The lamp usage time can be checked with the On-screen Display.

CAUTION

- Intense light hazard. Do not attempt to look into the aperture and lens while the projector is operating.

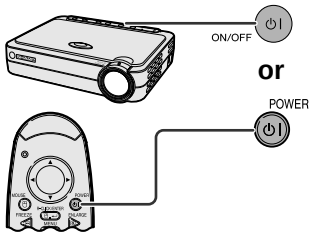
NOTE

- As the usage environment can vary significantly, the projector lamp may not operate for 1,500 hours.
- "1,500 hours" above indicates average life span and should be used for reference only. This is different than the warranty period.
- For safety, the power will not be turned on from the fourth time when turning on the power without changing the lamp after use for 1,500 hours.

Condition	Problem	Possible Solution
The LAMP REPLACEMENT indicator illuminates red, and "LAMP" will appear in yellow in the lower-left corner of the picture.	• Lamp has been used for over 1,400 hours.	• Purchase a replacement lamp unit (lamp cage/module) of the current type BQC-PGM15X//1 from your nearest Sharp Authorized Projector Dealer or Service Center. • Replace the lamp. If you wish, you may have the lamp replaced at your nearest Sharp Authorized Projector Dealer or Service Center.
A significant deterioration of the picture and color quality occurs.		
The power will automatically turn off and the projector will enter standby mode.	• Lamp has been used for over 1,500 hours.	
"LAMP" will appear in red in the lower-left corner of the picture, and the power will turn off.		

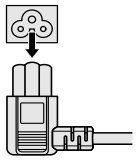
1 Turn off the power.

Press **ON/OFF** on the projector or **POWER** on the remote control. Wait until the cooling fan stops.



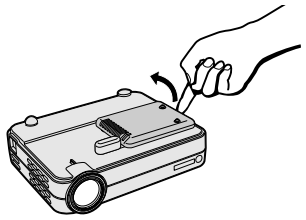
2 Disconnect the power cord.

Unplug the power cord from the AC socket.



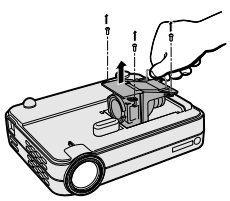
3 Remove the lamp cage cover.

Turn over the projector and loosen the user service screws that secure the lamp cage cover. Then lift open the cover in the direction of the arrow.



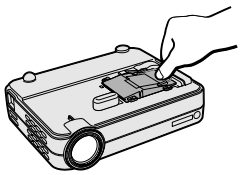
4 Remove the lamp cage.

Loosen the securing screws on the lamp cage. Hold the lamp cage by the handle and pull it towards you.



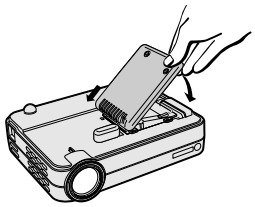
5 Insert the new lamp cage.

Press the lamp cage firmly into the lamp cage compartment. Fasten the securing screws.



6 Attach the lamp cage cover.

Slide the lamp cage cover in the direction of the arrow. Then tighten the user service screws.



OPTICAL ADJUSTMENT AND MEASURING

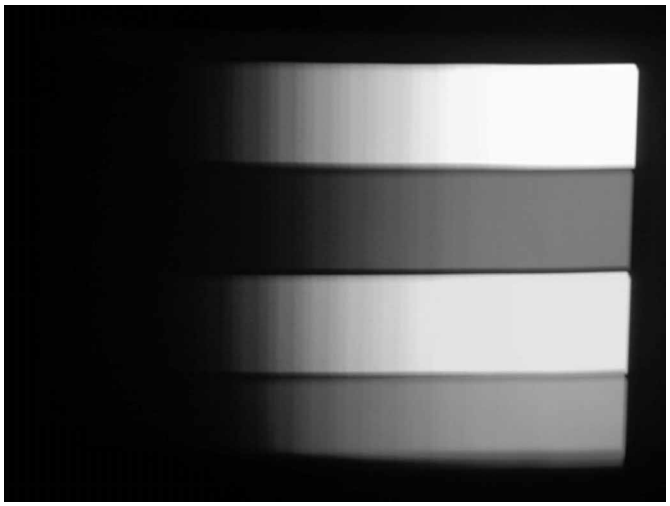
1. Adjustment of Color Wheel Sensor

- Adjustment needed
  1. When the color wheel unit has been replaced.
  2. When the color wheel sensor has been replaced.
  3. When the optical drive unit has been replaced (If a deviation from normal setting is found).

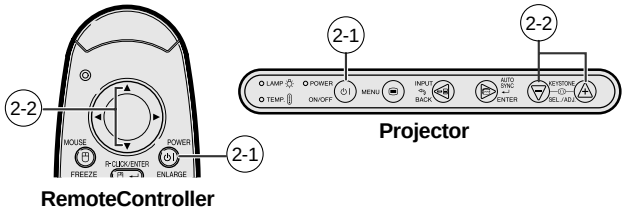
- Tools Required
  1. Personal computer (run on Windows 95/98)
  2. RGB cable

2. Color Wheel Index Adjustment

1. Choose R.G.B.W 4-color image.
1-1. Execute the “M15 Pattern dmw” command.
1-2. Click on “Color and Gray Scale”.
1-3. Left-click on the mouse to switch the pattern and to provide the “R.G.B.W 4-color Image” (64 Intensities for Primary Colors) output.



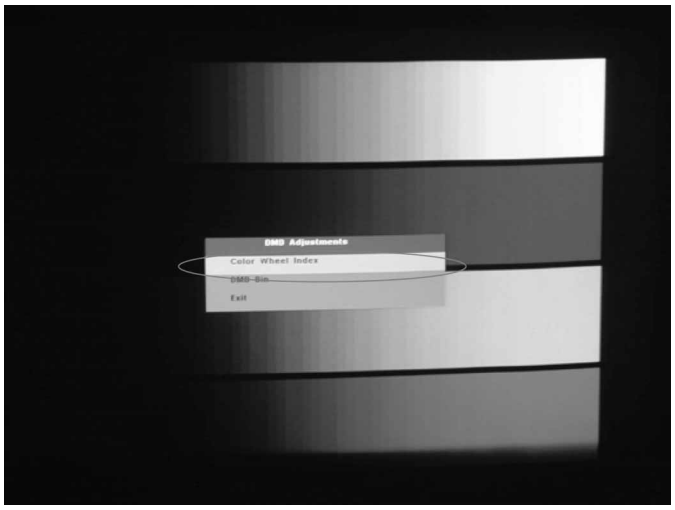
2. Select “DMD” on the process mode screen.
2-1. Turn on the power. Press the ON/OFF button on the projector or the POWER button on the remote controller.
2-2. Make sure the message “Turn Power OFF?” on the screen. With this message still onscreen, press the buttons in this order: “▲”, “▲”, “▼” and “▼” on the remote controller, or “+”, “+”, “-” and “-” on the projector.
2-3. Be sure the process adjustment menu appears on the screen, and select DMD.



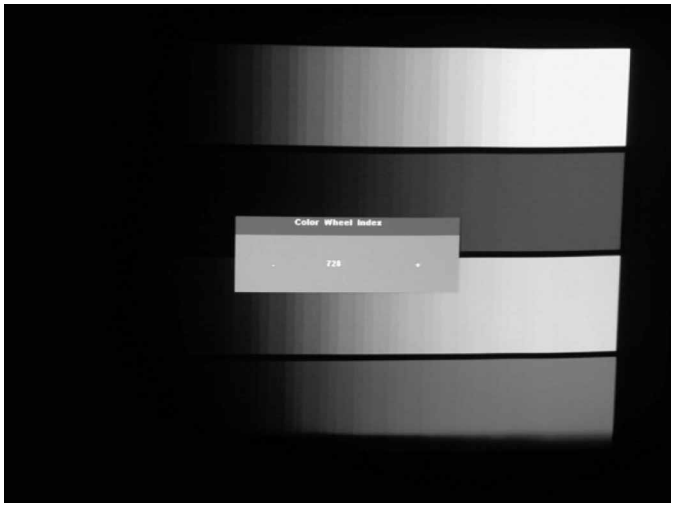
Projector

RemoteController

3. Choose "Color Wheel Index" to do adjustment.



4. Use "+" and "-" keys on Keypad to adjust the value to make the image have no abnormal color.



5. Press "Enter" key and "MENU" to go back to the original image.

3. DMD Type Setting Sop

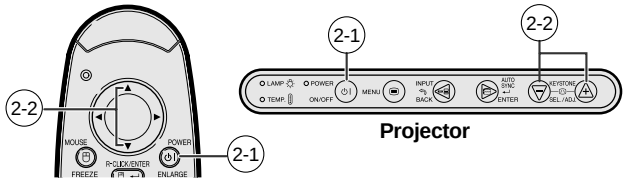
1. Record type of DMD chip (An English letter in capital) before assembly.

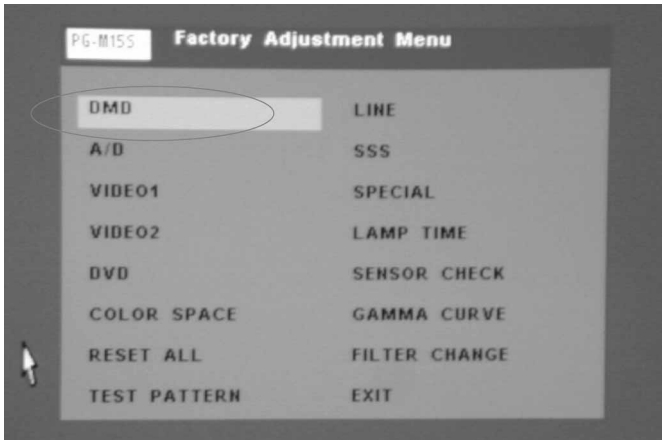
2. Select “DMD” on the process mode screen.

2-1. Turn on the power. Press the ON/OFF button on the projector or the POWER button on the remote controller.

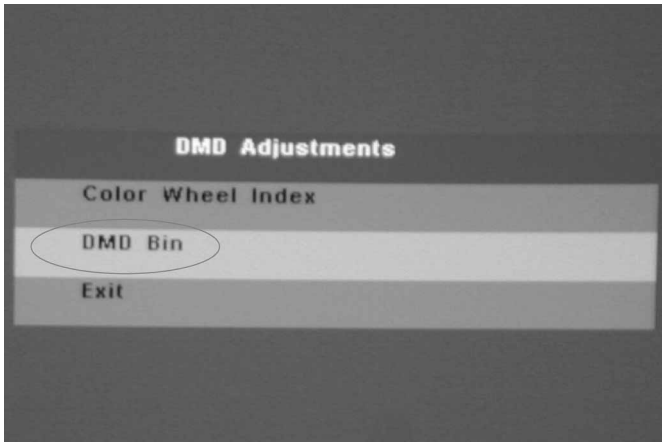
2-2. Make sure the message “Turn Power OFF?” on the screen. With this message still onscreen, press the buttons in this order: “▲”, “▲”, “▼” and “▼” on the remote controller, or “+”, “+”, “-” and “-” on the projector.

2-3. Be sure the process adjustment menu appears on the screen, and select DMD.

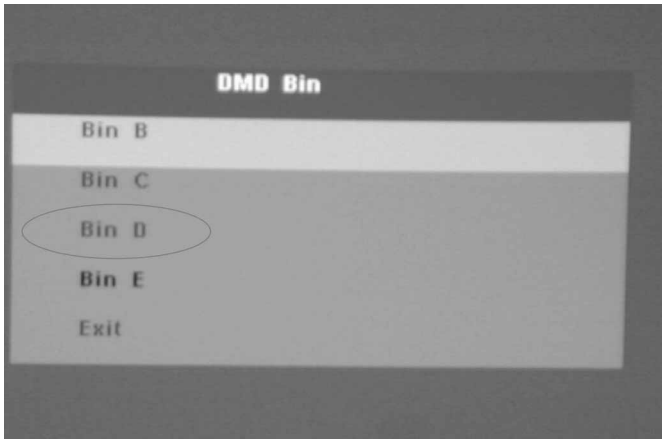




3. Choose "DMD Bin" to do setting.



4. Use "+" and "-" keys on Keypad to choose DMD type same as the type of new one

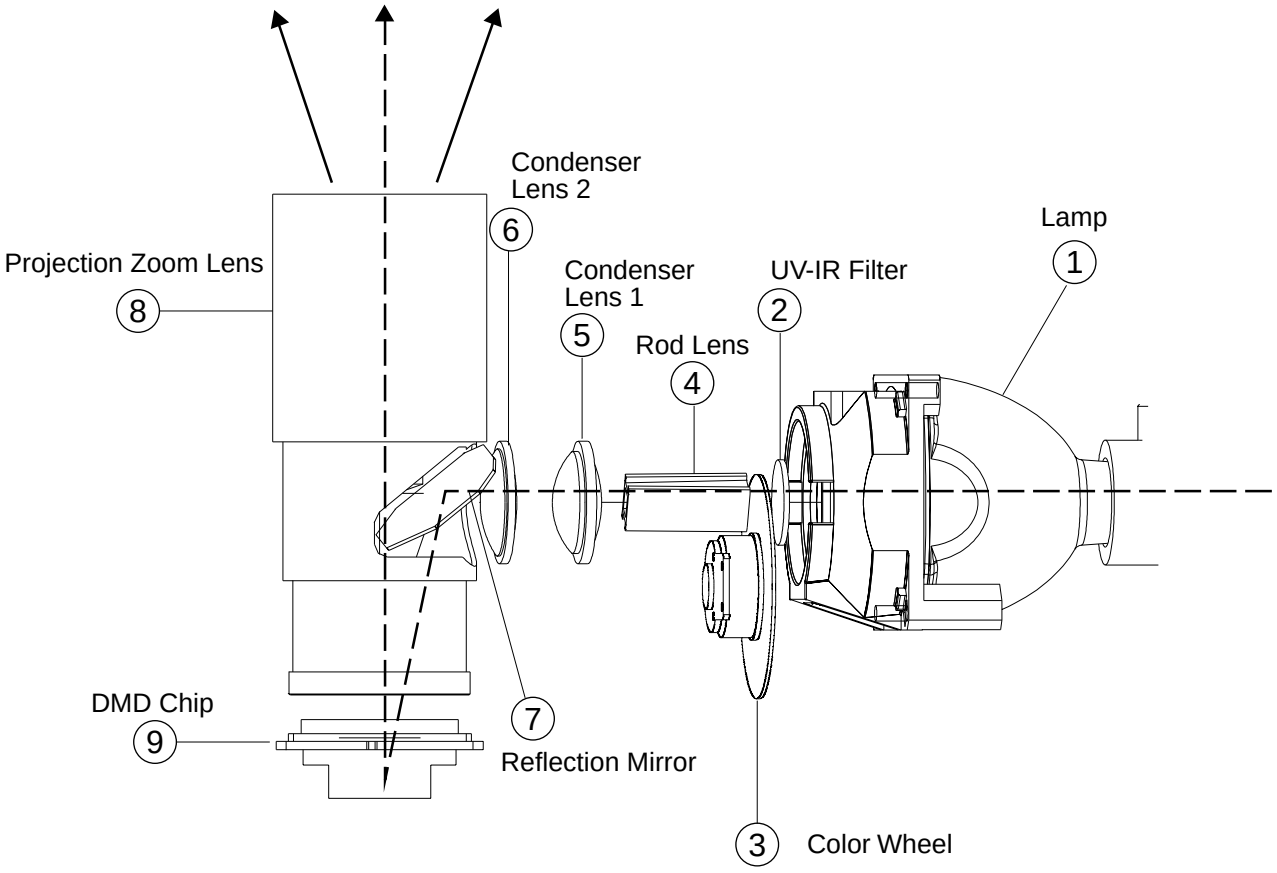


5. Press "Enter" key and then Press "MENU" key to go back to the original image.

Note: Be sure to make this DMD Type Setting to keep up the DMD chip reliability.

THE OPTICAL UNIT OUTLINE

<Conceptual Drawing>



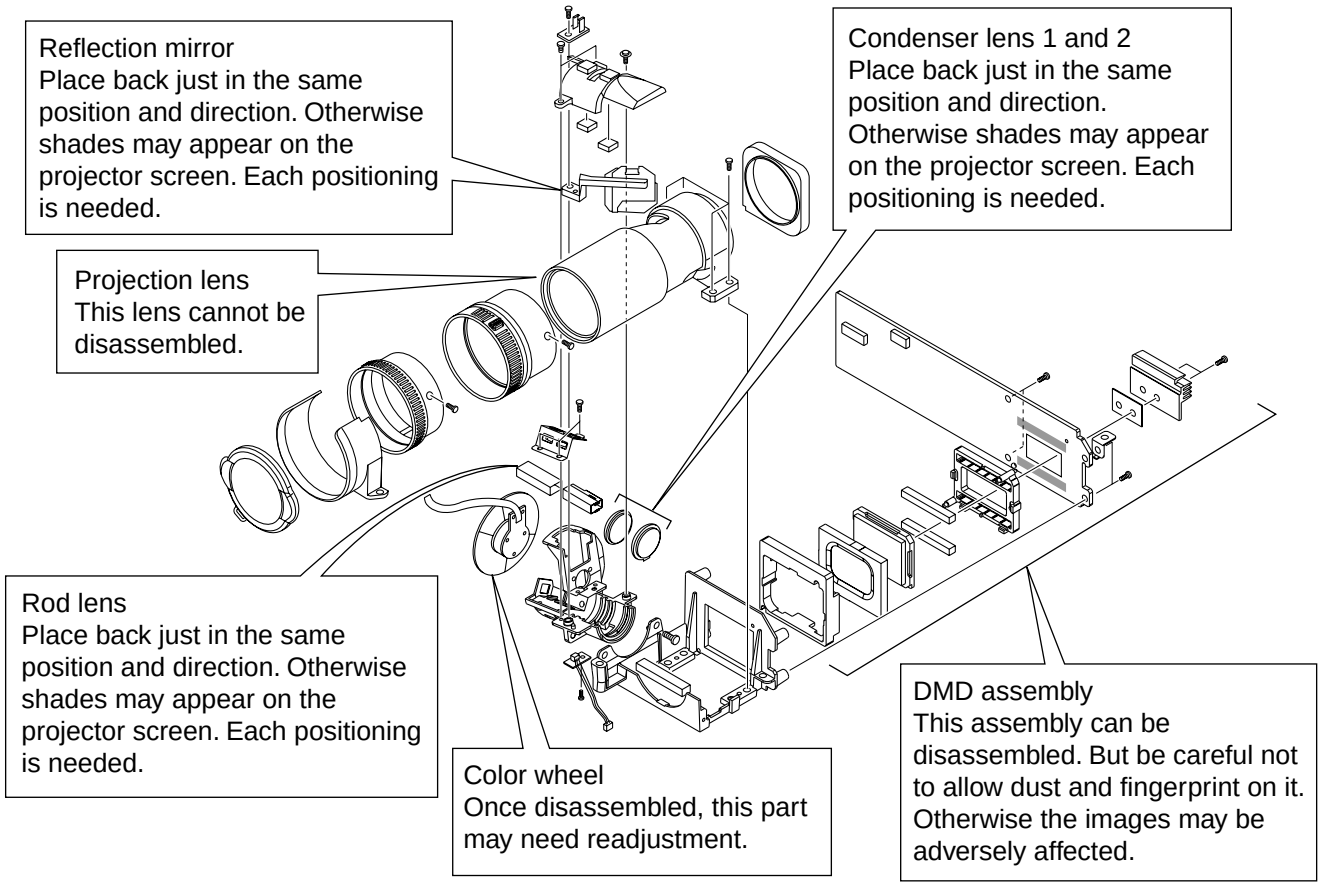
1. OSRAM Elliptical Reflector Kind of HID Lamp 130W
2. UV-IR Filter
3. Color Wheel
4. Rod Lens
5. Condenser Lens 1
6. Condenser Lens 2
7. Reflection Mirror
8. Projection Zoom Lens
9. DMD Chip

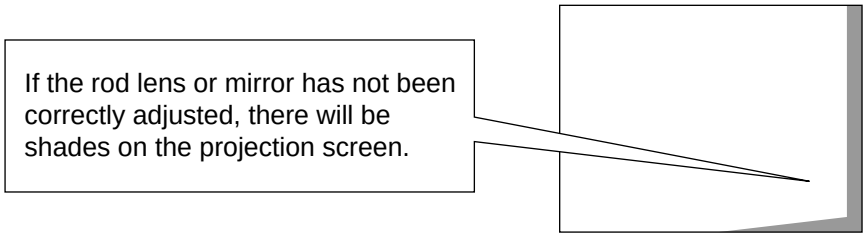
<Basic Functions>

- UV-IR Filter : Filtering UV-IR out.
- Color Wheel : Separating the light beam into and produce R.G.B colors.
- Rod Lens : Making the light beam uniform.
- Condenser Lens 1, 2 : Condenses the illumination of Rod Lens and projects it to the effective area of the reflection mirror.
- Reflection Mirror : This mirror reflects the light rojected to the effection area of the DMD.
- Projection Zoom Lens : Image from the DMD Chip will be projected on the screen through projection lens.
- DMD Chip : This chip turns on and off in proportion to each color component per dot depending on the in put source.

● Precautions in disassembling the optical mechanism

Note: If the optical mechanism needs repairs, preferably replace the entire optical mechanism assembly with new one. This is because to very fine adjustments are needed for some parts.


Reflection mirror
Place back just in the same position and direction. Otherwise shades may appear on the projector screen. Each positioning is needed.
Condenser lens 1 and 2
Place back just in the same position and direction. Otherwise shades may appear on the projector screen. Each positioning is needed.
Projection lens
This lens cannot be disassembled.
Rod lens
Place back just in the same position and direction. Otherwise shades may appear on the projector screen. Each positioning is needed.
Color wheel
Once disassembled, this part may need readjustment.
DMD assembly
This assembly can be disassembled. But be careful not to allow dust and fingerprint on it. Otherwise the images may be adversely affected.



● Initial factory settings

These models require no additional electrical adjustment. If by any chance the factory settings must be made again, however, call the process adjustment mode first in the following procedure.

1. Calling the process adjustment mode
   1) Turn on the power. Press the ON/OFF button on the projector or the POWER button on the remote controller.
   2) Make sure the message “Turn Power OFF?” on the screen. With this message still onscreen, press the buttons in this order: “▲”, “▲”, “▼” and “▼” on the remote controller, or “+”, “+”, “-” and “-” on the projector.
   3) Be sure the process adjustment menu appears on the screen.
2. Using the “▲” and “▼” buttons on the remote controller or the “+” and “-” buttons on the projector, select “SSS” and press the “ENTER” key.
3. Using the “▲” and “▼” buttons on the remote controller or the “+” and “-” buttons on the projector, select the following setting according to the destination and press the “ENTER” key.

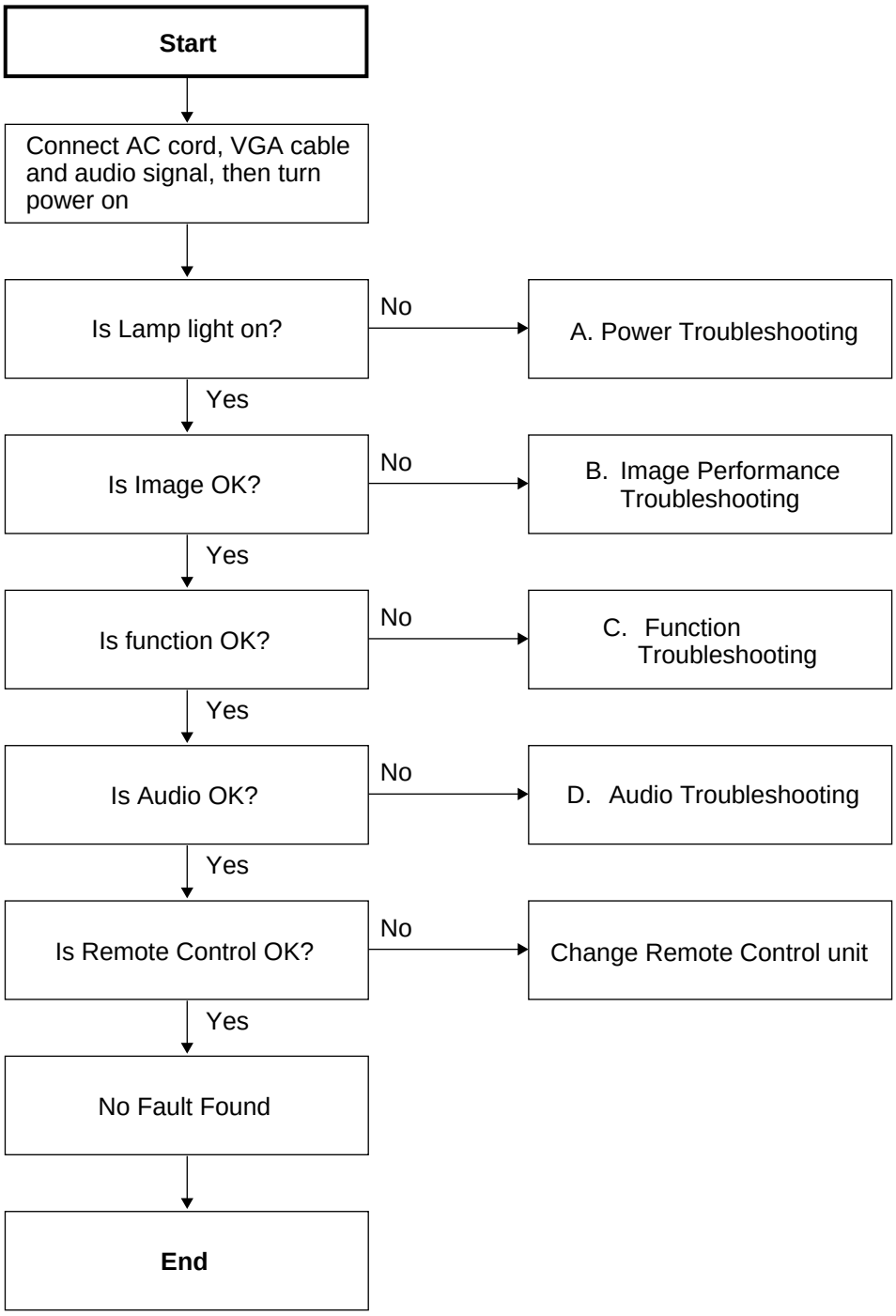
Setting	Destination
"S4"	Europe, Asia, Oceania
"S6"	North America

TROUBLE SHOOTING TABLE

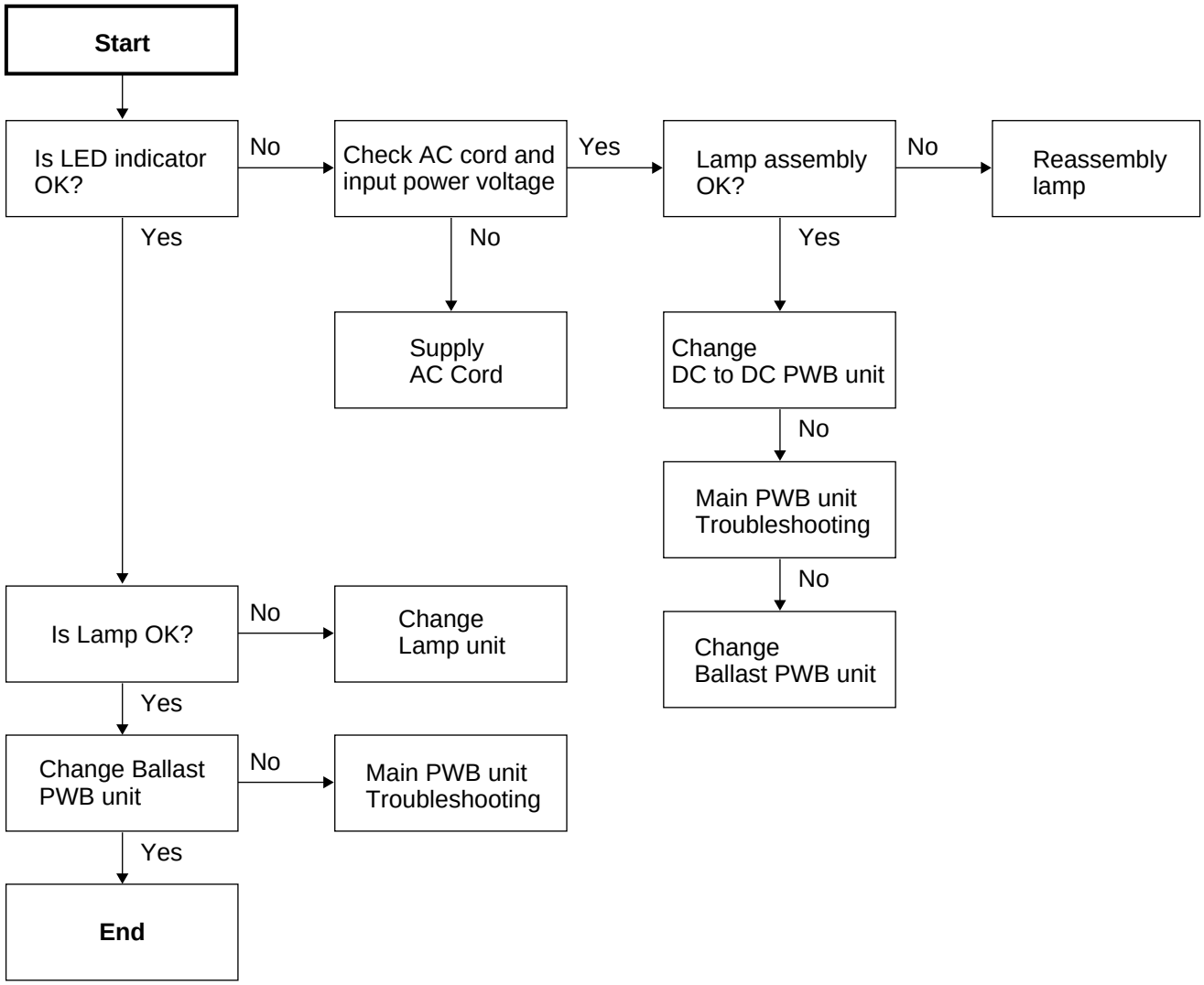
1. Equipment Needed

- PG-M15X/S
- VGA Cable, Power Cord
- PC (Personal Computer)
- Audio Input, Video Input
- Screw Driver

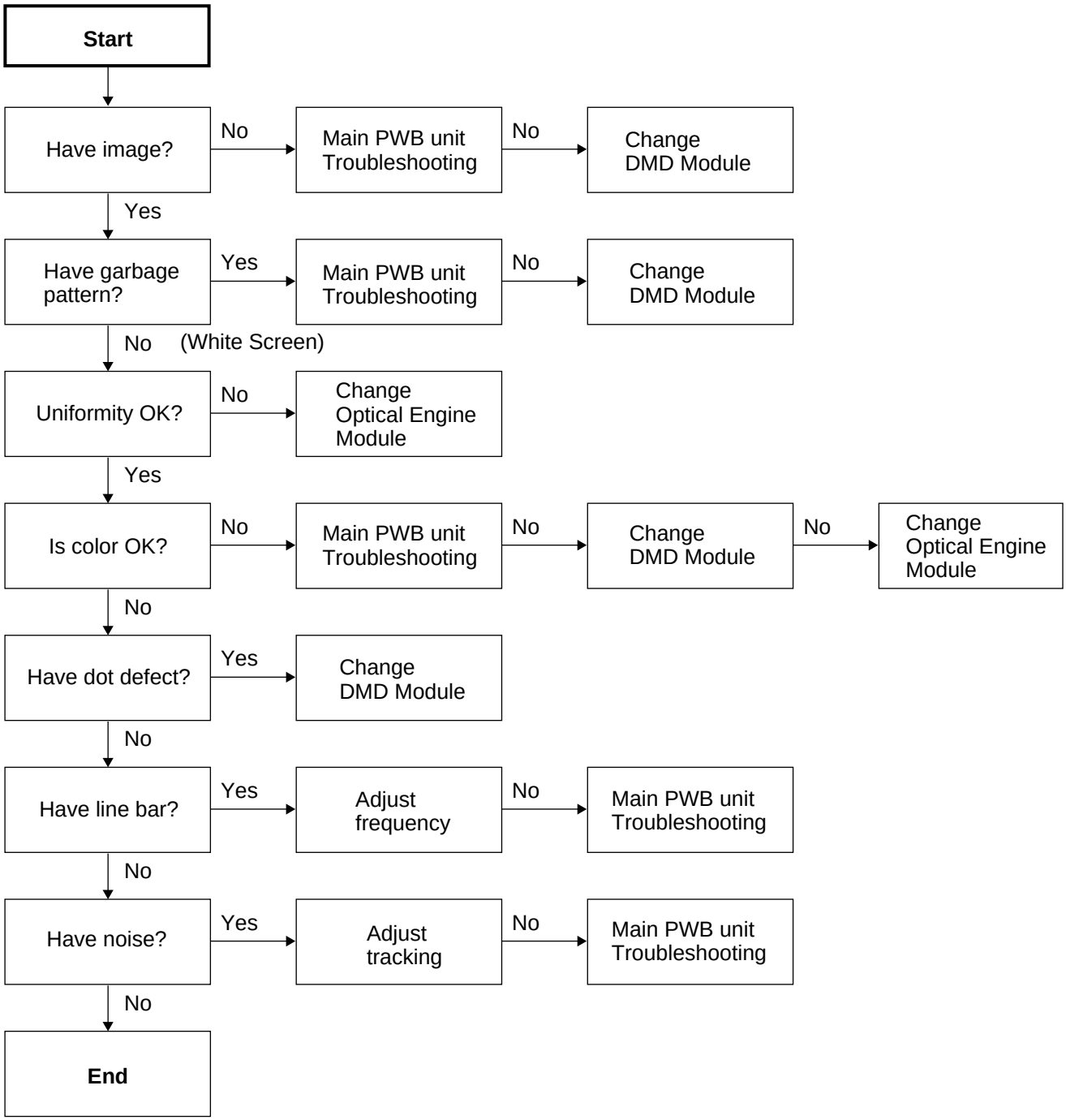
2. Main Procedure



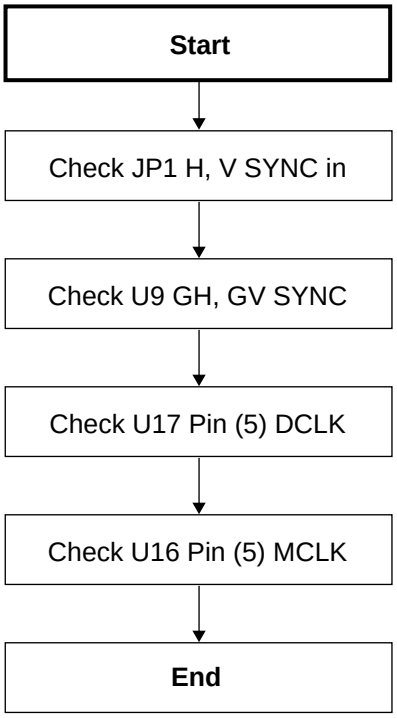
2-1. A. Power Troubleshooting



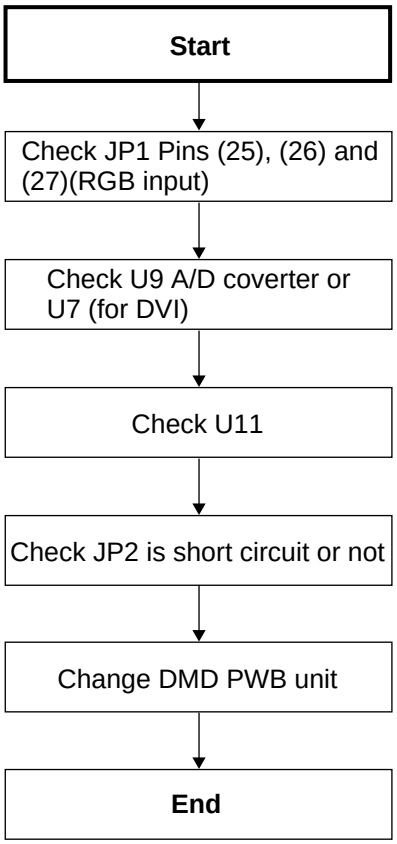
2-2. B. Performance Troubleshooting



2-2-1. White Screen or Garbage Pattern

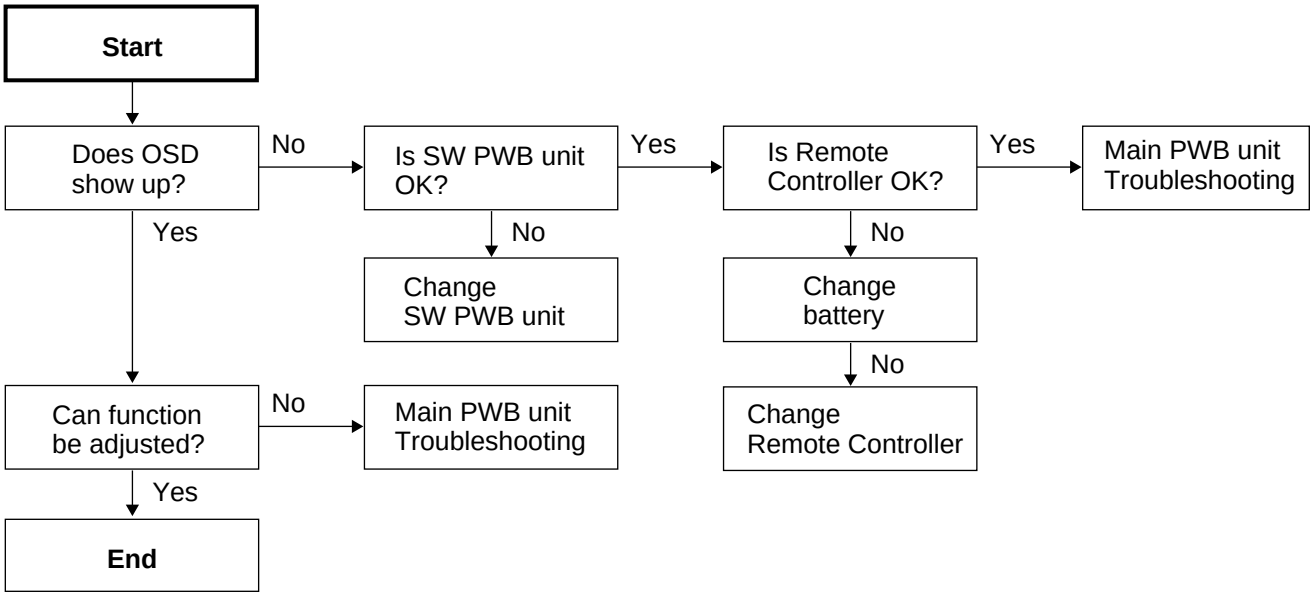


2-2-2. Color abnormal (VGA)

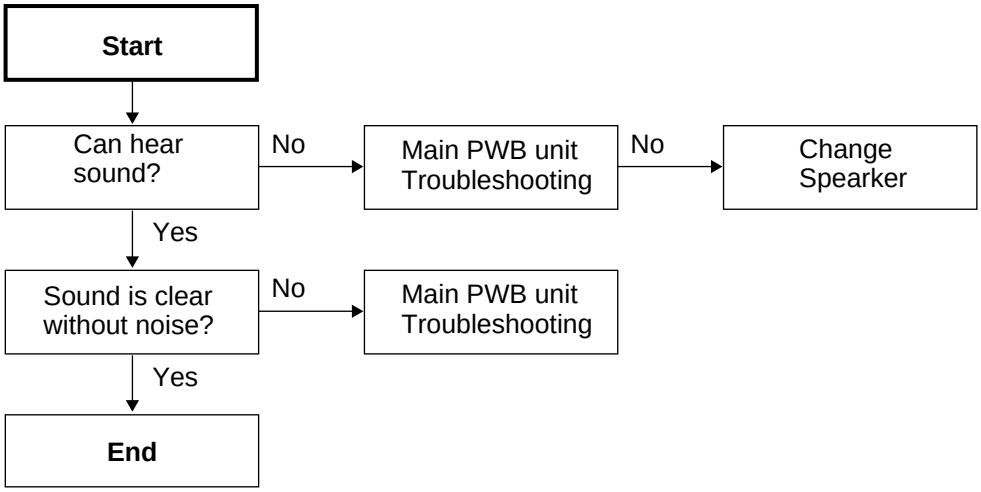

Start
Check JP1 Pins (25), (26) and (27)(RGB input)
Check U9 A/D coverter or U7 (for DVI)
Check U11
Check JP2 is short circuit or not
Change DMD PWB unit
End

* When you fix it, suggest use white frame or RGBW color display.

2-3. C. Function Troubleshooting

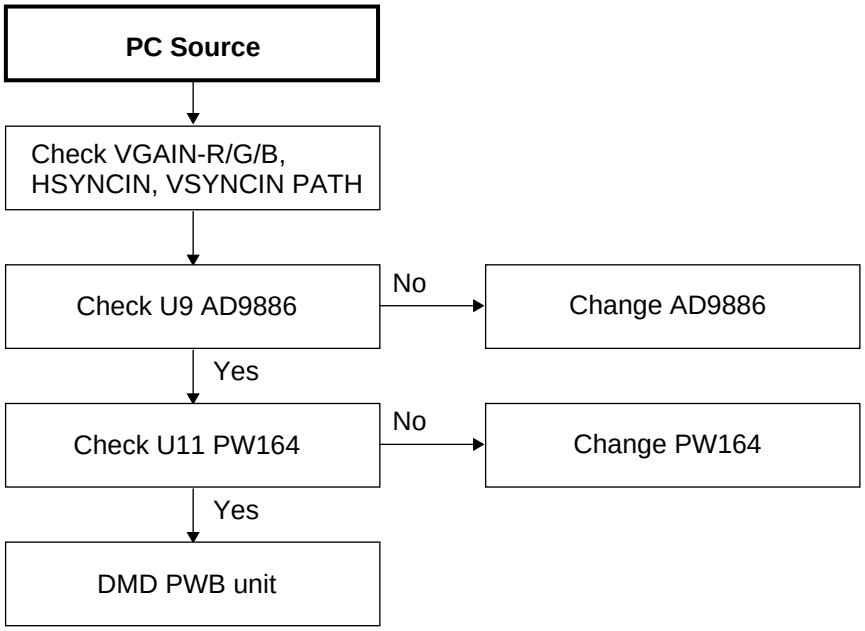


2-4. D. Audio Troubleshooting

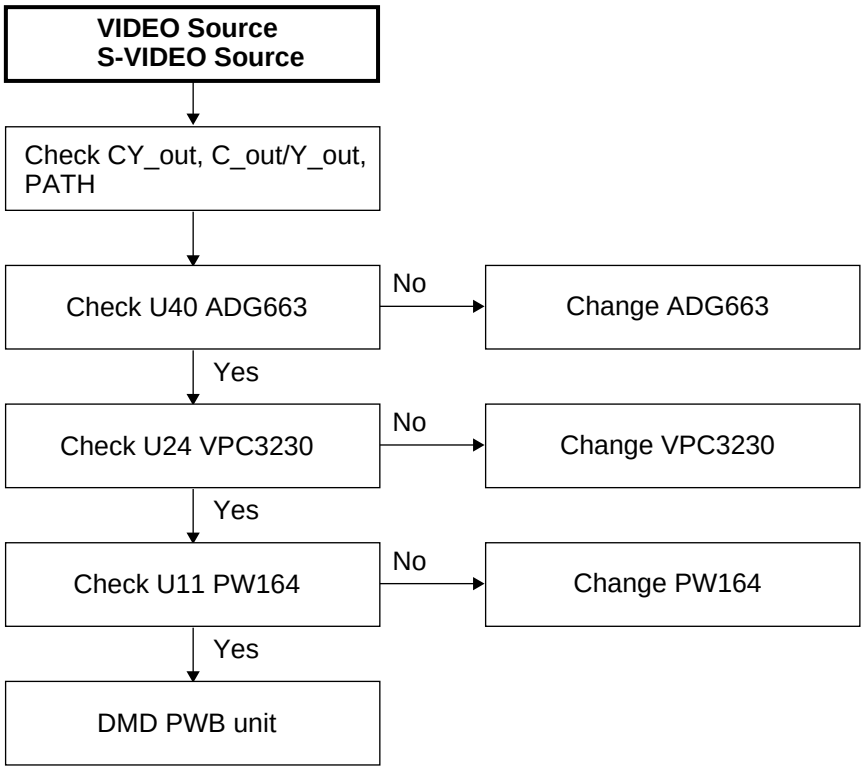


3. Main PWB unit Troubleshooting

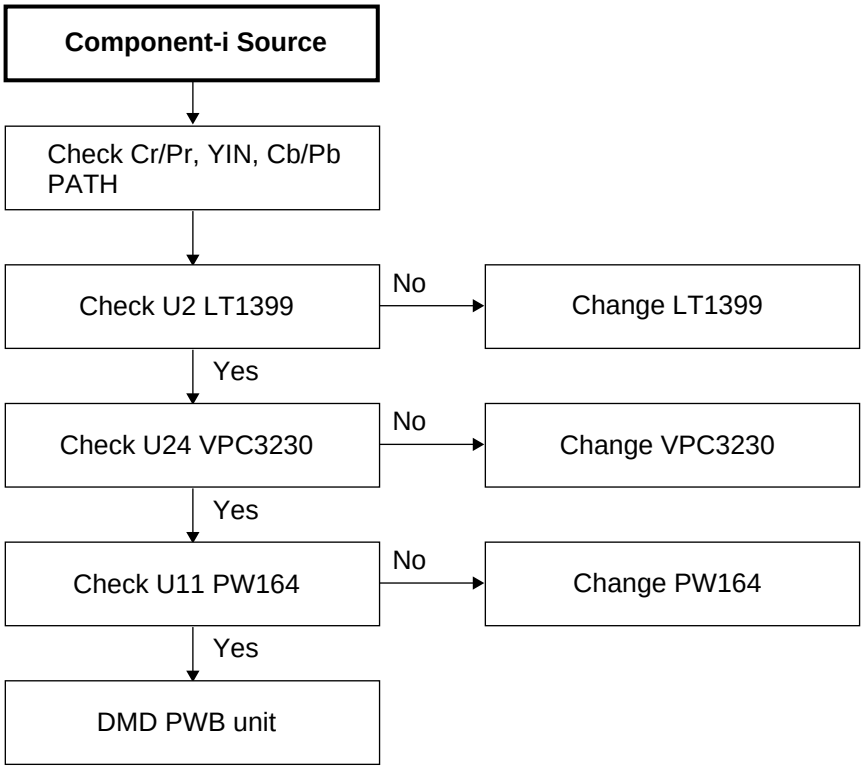
- **Condition-1.**



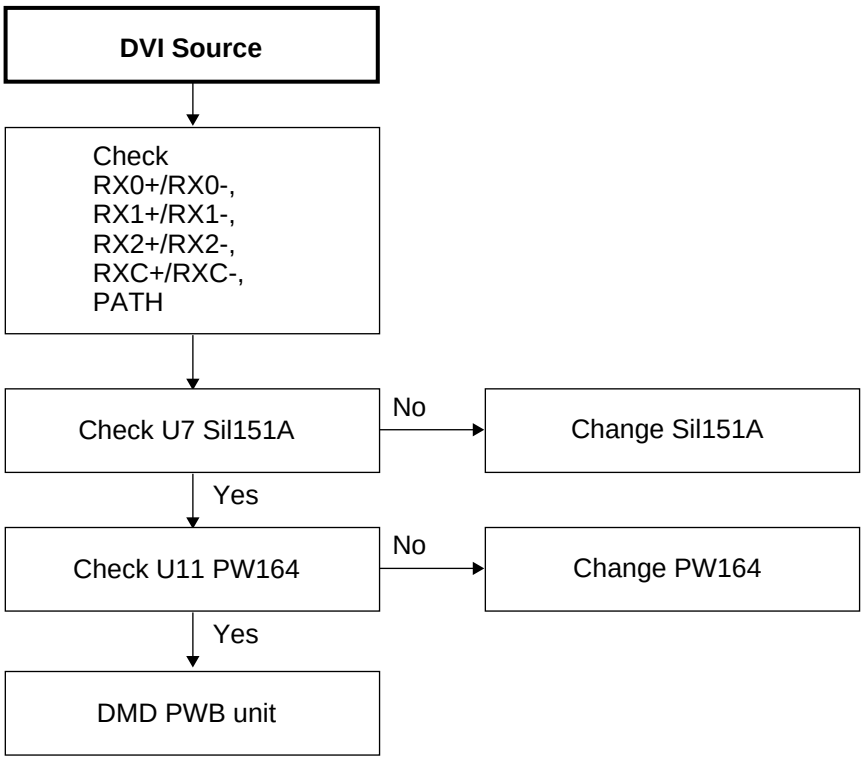
- **Condition-2.**



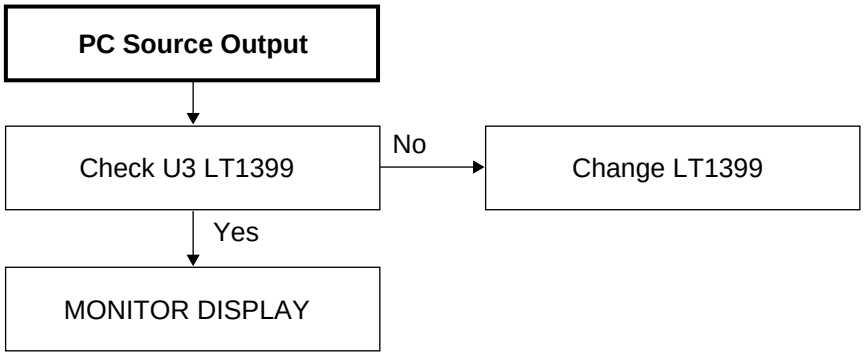
● **Condition-3.**



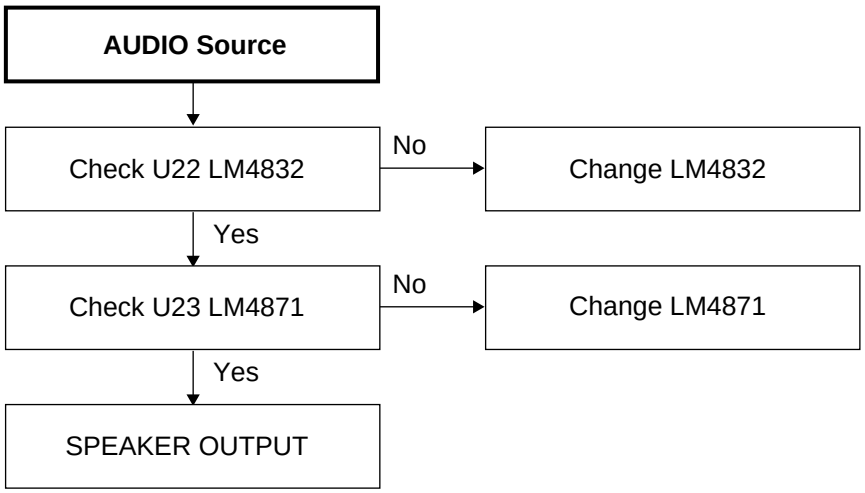
● **Condition-4.**



- **Condition-5.**



- **Condition-6.**



- **Condition-7.**